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EAR, EYE, AND HAND IN HARMONY-STUDY

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EAR, EYE, AND HAND IN HARMONY-STUDY

BY ERNEST FOWLES

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It seems equally true in art and in morals, that it is not by indulgence and favour, but by difficulty and trouble, that the spirit is formed.

SIR GEORGE GROVE

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To My Friend

HERBERT WISEMAN

PREFACE

THE GENEROUS welcome accorded to my teachings with reference to harmony has emboldened me to offer a more complete exposition of my views upon the subject. The hope I have so frequently expressed, that a broader outlook would follow the adoption of the direct method in all harmonic training, has not been altogether unrealized. As a general rule, harmony is now taught with much less artificiality than of yore, and I am glad to have had a small share in the upward movement.

Harmony has suffered from the perversity of writers who have invariably treated the subject from the vocal and written standpoints. My little volume, published at London and New York in 1918,[1] was the first to place before the student its decorative keyboard aspect; but the time has come to consider the subject from other points of view, and, notably, in connexion with the important and integral facts of human reaction.

A trained musician can (*a*) identify harmonic forms through the ear, (*b*) express them at the keyboard, (*c*) recognize them in notation, (*d*) reduce them to writing. Furthermore, he is able to do these things as naturally and fluently as he (*a*) hears the speech of another, (*b*) makes use of speech himself, (*c*) reads or (*d*) writes the notation of speech. It is therefore a fair implication that each of the four methods of harmonic approach requires an individual treatment analogous to that bestowed upon verbal hearing, speech, reading, and writing.

The following headings summarize the respective needs:

AURAL

1. Harmony from the standpoint of the ear.

TACTUAL. A

2. The perpendicular expression of harmony at the keyboard.
3. The union, in keyboard study, of the perpendicular and horizontal aspects of harmony and melody.

VISUAL

4. Reading from notation the harmonic forms of instrumental music.

TACTUAL. B

5. The expression of harmony on paper.

My writings have hitherto dealt only with Nos. 2 and 3; but it is my specific claim that, by leading the elementary harmonist to use the pianoforte throughout the course of study, I have thrown him back upon the fundamental aural verities of the subject. It is impossible, day by day, to experiment with harmonic forms at the keyboard without arousing the interest of the ear; and since all harmony is, in the last resort, a matter of the ear, it follows that to arouse such interest is the happiest way to bring

[1] *Harmony in Pianoforte-Study*, vol. i (Curwen & Sons, London).

the student into touch with the most vital principle in the educational treatment of music.

To every earnest teacher—whether of harmony, instrument, or voice—I commend the analogy gleaned from the process of learning a verbal language. The instruments of expression are, of course, different; but, making due allowance for this, it is manifest that the general principles which dominate the culture of language have an altogether pertinent message for the educationist in the language of music.

It may be of interest to mention that the proposal to evolve the chord-sense, by the imitative vocal reproduction of memorized chords, was conceived in the course of some experiments I once made with the remarkable echo in the Baptistery at Pisa. The projection of a series of single sounds resulted in complete chords which remained suspended in the dome after the individual origin of the units had passed out of the mental consciousness. The reverberating chords seemed to me as a picture of what ought to happen in the mentality of the student of harmony, the echo manifestly being an emblem of the chord held in the mind through the action of memory stimulated by aural study.

Should a doubt be felt with regard to the validity of my main argument, it is possible only to suggest that it should be put to practical proof. The following tests may be applied to any student who has been occupied with paper harmony, and whose study has embraced the tonal concords together with the chord of the dominant seventh:

TEST I. Having sounded the tonic of a key, let him sing or hum the sounds of the chords of the tonic, subdominant, and dominant, each chord necessarily to be in close position and to lie within the range of the voice.

TEST II. Let him make an interesting rhythmic progression at the keyboard, based upon the following harmonies:

TONIC–SUBMEDIANT–SUPERTONIC–SUBDOMINANT–TONIC.

TEST III. Let him describe spontaneously and play in plain form the harmonies used in the following passage: Beethoven, Sonata, Op. 2, No. 2, 4th movement, bars 16 to 26.

Should these tests reveal no spontaneity of grasp, the truth will have at once to be conceded that the student has been occupied with a course of musically unfruitful study.

This book does not profess to provide material for personal study. Any value it may possess lies in its suggestiveness. Disciplinary tests may be allotted by the teacher, or, still better, may spring from the growing insight of the student. The aim is didactic only in its attempt to broaden the horizon of those whose task it is to deal with the subject, as well as to prove that, only through an infinitely wider treatment of harmony than usually prevails,

is it possible to place the harmonist of to-day in a position to appreciate the tone-combinations of advanced modern composers.

The previous paragraph is a sufficient explanation for the absence of references to ultra-modern harmony. The need of the student of the present day is a thorough training in the immediate descendants of classic harmony, and from the points of view elaborated in this book. Fortified by discipline of this kind, the mentality is prepared to exercise the faculty of judgement in the many problems presented by recent expositions of musical art. Apart from such a training, the power of judgement must inevitably give place to the formation of predilections or antipathies, alike casual and irresponsible.

If the principles here involved be carried into active practice, the general appreciation of music will receive an impetus without measure. This, indeed, is the main reason why the culture of harmony should be as thorough as it is possible to make it. It is through the harmonic gateway that the student reaches that wide plateau of observation which is as necessary to the musical as to every other form of intellectual experience.

E. F.

Bedruthan, Caterham Valley, Surrey,
July 1927.

CONTENTS

PART ONE

THE PLACE OF HARMONY IN MUSICAL EDUCATION

SECTION 1. FUNDAMENTAL FORCES.

THERE ARE many points in which music and verbal language touch common ground, but when all is said of quantity, cadence, rhythm, climax, and the like, there yet remains the unique progression of music in simultaneous threads of sound, a fact which raises it to a sphere peculiar to itself, and in which the art of letters can have no place. It is this fact which forms the basis of every book written upon the subject of harmony.

Harmony, then, refers to the various combinations of sounds used in the musical art. So obvious a definition would seem to be superfluous. Yet there are numbers of students who are but remotely conscious of the exact pertinency of harmony to music, or who realize, to any pronounced extent, their obligations towards an intelligent study of the subject.

Lack of harmonic ambition does not necessarily arise from want of enterprise or a tendency to shallowness. Rather may it be traced to the multifarious attractions of music, and, in particular, to the frequent force of isolated appeals, each of which, in the absence of sufficient insight, may individually seem to bear within itself the entire message of the art. In fact, the diversity of its elements enables music, sometimes in one way, sometimes in another, to attract the vast majority of men and women. While this may be one of the glories of the art, it is also an attribute charged with peril. The very greatness of many an isolated appeal is often potent in persuading those whom it affects that they are in possession of the secret of the whole. It may, indeed, be said that the allurements to many temperaments of the purely sectional in music is one of the greatest problems before the educationist of to-day.

It is therefore evident that the work of musical education consists of linking up or correlating the various attractive forces native to music. Of these forces, four are particularly fundamental to its life: namely, Tone, Rhythm, Harmony, and Melody.

TONE is *par excellence* the human element of music. It is tone which knits together the fabrics woven by rhythm, harmony, and melody. Tone is to music as colour to painting; as infinite in the varieties and permutations of its shadings. Tone is usually the last element considered in the making of music; its existence is but barely acknowledged in books which deal with the general technique of the art; it is often a minus quantity in the intelligence of the student; yet there is no aspect of music which demands more attention from listener and player alike.

RHYTHM is the manifestation of tone in movement. It is at once an outward and an inward force. While its outward aspect is concerned with the physical side of musical performance, its inward influence is found in the mental grasp of music within the imaginative life of man. Rhythm appeals readily to many who are unable to react to sensations produced by tone. Tone is often a matter of education; rhythm is a part of man's natural life. For these reasons, the application of rhythm to music should be one of the first principles brought before the student.

HARMONY combines the units of tone. From such combinations spring chords and progressions of chords, all being subject both to the aesthetic

claims of tone and to the energizing influence of rhythm. Harmony is musically alive only when, as with rhythm, it is personally demonstrated. Demonstration may be an imaginative act, or an active process at the keyboard. In either case, however, the ultimate quality of the demonstration will depend upon how far it has been based upon rhythm. For, while rhythm can be demonstrated apart from any real perception of harmony, effective harmonic demonstration is impossible in the absence of rhythmic insight. The customary unenterprising outlook upon harmony is almost entirely due to ignorance of this principle.

MELODY is the rhythmic progression of single units of tone. The mental effect of a melody depends upon the tone-mutations and tone-inflexions which accompany its progress, and it is largely because of this that a cultured grasp of melody is one of the rarest of experiences. It is popularly supposed that melody is the one element of music which makes an instant appeal to the untaught. While this may be so with many conventional and rhythmically simple tunes, it is certainly not true of the great tunes bequeathed to us by the supreme masters of melody. The casual tune whistled by the passing urchin springs from a rudimentary perception of the metrical relationship between words and music. The instrumental melody may have originated in a similar way, but its development by masters of tone-craft has lifted it into an atmosphere peculiarly its own and indelibly marked by an absolute independence of words. In this development harmony has played an important part; and, for this reason, it has fallen out that taste in melody is, to a very large extent, dependent upon the possession of harmonic insight.

The preceding paragraphs have proved the need for the strong correlating medium already mentioned. The most elementary of students must be helped to the experience of the trained musician in whose mind the four elements coalesce in perfect unity. Where shall such a medium be found? Assuredly in harmony alone. The great correlating properties of harmony can hardly be exaggerated. It can accustom the mind to think in terms of tone; it can lead to a full rhythmic consciousness; in all probability, harmony reaches its ultimate triumph when it becomes a cultural means of receiving, with understanding, the true message of melody.

It is the great co-ordinating quality of harmony which must therefore be regarded as the inspiring motive of this book. Tone and rhythm will no longer be directly mentioned, it being assumed that, when the student arrives at the stage of practical demonstration, every progression made at the instrument will be stimulated by a consciousness of the presence of both.

SECTION 2. MENTAL REACTIONS.

Three senses are actively employed in all intelligent harmonic study, namely, the *aural*, *visual*, and the *tactual*. The first refers to the ear or ordinary channel of communication between musical sounds and the mind of the hearer. The second relates to the perception of harmony through the medium of notation. The third divides into two forms of activity; thus, the hand may demonstrate harmonic thought at the keyboard or express the same on paper.

It follows, therefore, that the study of harmony demands a thorough and consistent training of the senses employed in its appreciation and expression. Furthermore, it is clear that, before discussing the purely musical side of the subject, it is needful to know something of the part played in human

development by the actions, reactions, and interactions of the senses concerned.

The natural primary reactions of each human sense are exceedingly quick in operation. The first response of the organs of touch, of smell or sight, of taste or hearing, occurs within the merest fraction of a second. This response is essentially simple in nature and involuntary in action. Thus, by inadvertently placing the hand upon a heated object, the sense of touch is stirred into activity; but the first reaction is concerned, not with the nature of the object or the reason for the mischance, but solely with the simple realization of sudden pain. Or, an unexpected blaze of light may strike the eye. The first reaction merely registers the emission of the light and is unconcerned with its natural or artificial origin.

It is therefore clear that no training is needed to develop or to give greater celerity of response to the primary reactions. In every normal man or woman, Nature provides both the senses and the means for their immediate primary response to every sensation.

The primary reactions, however, are not the only ones experienced by man. Were this the case, his life would be intolerable. Following immediately after the first, arise a number of secondary reactions; and it is upon the quality and extent of these that all human happiness and productiveness may be said to depend. It is at this point that we find ourselves upon the invigorating ground of education.

Education has three main objects: (*a*) to increase the number of the reactions which follow the primary reaction of each sense; (*b*) to improve the quality of each reaction; (*c*) to augment the speed of every healthy and desirable reaction.

For example, I touch a stone. It may be one picked up at the roadside, or one from a classic ruin. The educative forces within me determine the nature of the mental reactions which, perforce, must follow the primary reaction of touch. Poverty of mental equipment will entail that either stone will give birth to practically similar and necessarily imperfect reactions. On the other hand, the classic stone may stir my imagination to its depths and produce reaction upon reaction, the number and nature of which will depend wholly upon my knowledge and idealism or, in brief, my education.

It is in this way that we arrive at the important axiom: that all knowledge in the individual, all clarity of thought, all power in every department of mental activity, depends upon the number and character of the secondary reactions.

More is involved in this axiom than at first appears. For instance, no reaction can take place in the absence of the necessary knowledge, insight, or power to bring it into life. In every conceivable case, secondary reactions reflect the extent of the personal development in any phase of any subject; that, and no more. Further, the axiom implies instant reaction. Slowness of reaction is one of the most common of mental defects and requires stringent methods of study for its cure.

The provision of suitable mental material to form the basis of reaction, and the development of the power to bring the various reactions into immediate life, may therefore be regarded as the specific aims of all culture. In no subject is a consciousness of these needs more vital than in the study and teaching of harmony. A grasp of harmonic thought involves the development of four distinct sets of mental reactions, and these must now be considered *seriatim*.

A. *Mental Reactions connected with the Ear.*

A chord is sounded by way of illustration. The fact is signalled to the mind in the sixth part of a second. Thus far, all human beings meet on common ground. The primary reaction of a musician to the sound of the chord is in no whit superior to the same reaction experienced by those to whom the sounds of music are the merest negations. The test of his musicianship lies in the secondary reactions which reveal to him the musical pertinencies of the chord as swiftly as the identity of a well-known flower is seized after the primary reaction of smell.

B. *Mental Reactions connected with the Keyboard.*

The possession of healthy aural reactions leads directly to harmonic demonstration at the keyboard. The power thus to demonstrate is, in fact, one of the strongest proofs of the reality of those reactions. But there is a phase of mental reaction of this kind which is intimately concerned with the simple sense of touch. The secondary reactions of the musician who touches the keyboard to play a chord originate in his tactual consciousness; and, before his fingers have depressed the keys to sound the chord, its musical effect is already a reality to him. The word *touch* is usually linked with the muscular means of instrumental tone-production. A higher use of the term describes those secondary tactual reactions which immediately follow the first in the mind of the player to whom harmony is one of the intimacies of life.

C. *Mental Reactions connected with the Eye.*

The illustration may consist of a series of written chords. The eye of the musician sees the symbols with miraculous celerity, but he shares this advantage with every other normal member of the human family. Hence, proof of his musicianship cannot lie in the primary reaction of *sight*. It is the *insight* of the musician, or the working of his secondary reactions, which enables him to see, to hear, behind the written notes and to recognize their aesthetic pertinencies and associations.

D. *Mental Reactions connected with the Pen.*

Facility in writing harmony is purely a matter of wealth of secondary reaction. As with his management of the keyboard, the pen of the musician writing a harmonic progression is a continuation of the whole implement with which he expresses himself. From brain, through arm, hand, and pen, through the symbols to the thought behind them, is one unified process in the expression of thought.

The foregoing paragraphs have described the mental reactions of the cultured musician engaged in hearing, playing, reading, or writing harmony. They have also pointed a moral to the student who desires to reach a like plateau of mental power. The latter must, however, understand the vastness of his need. If, for instance, when hearing, playing, reading, or writing a series of chords, he be unable to evoke those secondary reactions which inform him of the character, tonal significance, and general musical effect of the progression, he is virtually in the same position, aesthetically, as those whose power in the things of music does not extend beyond the primary stage of reaction.

The secondary reactions which ought to follow the hearing, playing, reading, or writing of musical thought are very numerous; moreover, many of them spring directly from harmonic insight and, indeed, are unrealizable by any other means.

It is an unfortunate fact that the majority of music students are content with a mental equipment which yields reactions both moderate in amount and modest in quality. The result is a condition of mediocrity which, in spite of frequent brilliance in outward attainment, is beyond remedy save only by the systematic study of that phase of music dealt with in this book.

There is practically no limit to the musical possibilities of the man or woman whose mental reactions are equally vivid and spontaneous in hearing, playing, reading, and writing harmony.

SECTION 3. THE FOUR STAGES.

The individual nature of each of the four forms of harmonic understanding points to the need for an inquiry with respect to their order in the process of education. An inquiry of this kind may most helpfully group the facts connected with the cult of verbal language, and, by intelligent comparison, ascertain the suggestive points of contact with musical thought.

Four separate processes are concerned with verbal reception and expression, namely:

HEARING. SPEAKING. READING. WRITING.

It is in this order of succession that we apply the processes in grasping our mother tongue. We learn to speak by imitating the words of those around; we begin to write after the various symbols have become familiar through the act of reading.

Should this order be preserved in learning the language of music? To answer this question it is needful first to contrast the four processes in relation to both forms of expression, and then to measure the importance, both to student and teacher, of the issues raised by differences in the manner of their application.

The act of *hearing* a language is a practically continuous experience. The path of aural grasp is made clear by hourly needs. We are compelled to hear in order that we may understand the words and sentences which so closely concern our happiness.

The act of listening to music may be a daily experience, but it cannot be continuous. The path of aural grasp is often obscured by the fact that the young, in particular, are conscious of no compulsion to listen to a form of language which does not seem to them to relate to the necessities of everyday life.

Consequently, the hearing of musical idioms and of general forms of musical expression must be raised to the position claimed by the aural grasp of verbal language. The student must compel himself to feel a similar need to hear aright the far more subtle language of music. He must be led to believe that his ultimate success depends as much upon the ardency of his desire as upon the means he uses to attain it.

The act of *speaking* a language is the natural outcome of the power to hear it. Here, also, our daily needs impel us to collect a vocabulary, as well as to master every indispensable form of lingual expression.

Verbal speech is, with reference to music, the type of instrumental or vocal performance. An enormous difference is at once revealed between the instruments of verbal and those of musical speech. The first is the natural means inherent within us, which calls for no further discipline than the imitation of the sounds made by others; the second requires an intelligently graded training extending throughout a course of years.

Hence, if the culture of a musical instrument were deferred until the ear had been adequately trained, a large proportion of eager music-lovers would not arrive at the starting-point until it was too late to enter upon the stage of performance with any hope of ultimate success. It must, therefore, be assumed that, contrary to the practice which obtains in learning to speak, the first and second stages of musical culture must overlap. This truth is generally misunderstood by music students. Having entered the second stage, they are prone, not only to emphasize its spectacular side and the technical discipline involved, but also to imagine themselves to be beyond the first or aural stage. The undoubted fact, that instrumental or vocal progress is immensely helped by the possession of aural insight, is allowed to remain untested and hidden beneath the more exciting pursuit of executive achievement. While overlapping is an obvious need, the reason should always be made clear to the student. He will then realize that his first duty is to the ear and will regulate his course of study accordingly.

The act of *reading* a verbal language becomes an easy task as soon as the eye has grasped the relationship between the simple characters and the sounds which they represent.

The act of reading the symbolism of musical notation is a problem of very great complexity. A mastery of the innumerable combinations of symbols which form a musical score of even moderate pretensions is a formidable barrier to the average reader.

Here, again, if the reading of notation were deferred until the ear were thoroughly responsive, many purely visual difficulties would still have to be overcome, and the postponement would merely augment the arduousness of their conquest. Hence, the overlapping of the first and second stages must be repeated with the first and third. The ever-present possibility of misunderstanding the reason for overlapping is, however, a danger to the unwarned or unwary. Like the symbols of language, those of music relate to *sounds*. Consequently, progress in reading depends primarily upon the collateral advance made in the aural stage.

The act of *writing* a verbal language is an issue of the power to read it. The pen speedily learns to trace the signs previously grasped by the eye. Moreover, the act is greatly simplified by the single line of letters which can express every human emotion without departing from its uniformly level appearance.

The act of writing musical notation involves a tactual power greatly transcending that required for verbal notation. The highly concentrated form of the word enables it to be transmitted to paper with a minimum of effort; the expression of a single chord may require a large number of symbols which may be spread over a wide area and may occur at many levels.

The elementary difficulties of reading are in themselves enough to negative any attempt to write notation during the early stages of study. Nothing can be more clear than that the mere writing of notation, while an ultimate necessity to the most moderate musicianship, depends largely upon a previous grasp of the general scheme of notation, and should be deferred until the reading instinct has developed to some considerable extent. Thus, although there must again be overlapping of stages, the writing stage should be started at a later point than the reading stage.

The effect of the progress made in the first stage upon that of the fourth is measured less by facility with the pen than by the celerity of the eye. The pen can readily trace what the eye can 'hear'; and, since the reading function takes precedence of writing, the hand will write from the experience gained through the eye—that, and nothing more.

Three simple rules may thus be deduced with reference to the four stages of study:

I. That it is essential to remember the natural order of sequence in the acts of Hearing, Speaking, Reading, Writing.
II. That while, in the main, this order should be preserved in musical education, there are many considerations peculiar to the latter which necessitate overlapping of the stages.
III. That such overlapping must not be allowed to obscure the original order of the four stages, or render the entry into a further stage an excuse for neglecting the previous stage or stages.

Thus, by virtue of the overlapping of the stages, in no other subject is the multitude of possible correlations so great; and no other subject, therefore, is of greater psychological and intellectual value to the student who takes full advantage of it. This benefit, however, is derived only from a complete knowledge of the various interactions common to the four stages. It is the want of this essential knowledge which accounts for the poverty of grasp so often displayed by students of the art—by instrumentalists and vocalists who attempt to correlate the second and third stages, omitting the first—by writers of harmony who correlate the third and fourth stages, neglectful of the first and second. A passage of music, nay, a single chord, should be heard, played, read, and written with equal insight and with equal ease.

The problem, therefore, is to discover a means whereby the first three stages—and, ultimately, the fourth—may be brought into close partnership in the making of a musician. Such a means can be found only in that element of which this book is the subject. If rightly approached, the study of harmony will train the ear to grasp the kaleidoscopic combinations of music. It will help the student in his struggles towards self-expression at the instrument. It will bring him in safety through the mazes of notation. Ultimately, it will bestow upon him the pen of the ready writer, and thus prepare him, perchance, for the inspiring adventure of original composition.

SECTION 4. THE RESPONSIBILITY OF THE TEACHER.

It is an obvious inference from the previous Sections that the subject of harmony demands a particularly enlightened method of instruction. In no department of teaching, indeed, is the need greater for teachers with a breadth of vision commensurate with their technical qualifications.

The teacher of harmony has hitherto been regarded as one set apart for the special purpose implied. The time has come to reconsider the whole question. Manifestly, it is best, if possible, to procure the services of a teacher whose experience specially befits him for the kind of instruction required; this, however, is often impossible in the case of students who live at a distance from educational centres. There are thousands of students whose only means of help in music study is derived from the musicians in general practice who reside in their immediate neighbourhood. What can be done for these in the way of systematic harmonic training?

The answer to this question may take the form of a counter-question—What is a music lesson? Popularly, the term is held to refer to a lesson in pianoforte playing. Actually, it should embrace every kind of lesson in the art of music. Briefly defined, a music lesson is the musician's opportunity to bring his student into touch with the living inward spirit of music. Such a definition is sufficient to indicate the weakness of a lesson spent upon

purely objective work and which neglects the subjective essentials of all real musical effort. For, unless the instruction of the teacher be of that nature which is likely to lead to a fuller understanding of the properties of the art, the term *music lesson* is an obvious misnomer. The mere acquirement of instrumental or vocal skill, unaccompanied by an ever-deepening experience of music itself, may be a passing gratification; but there is no real ultimate compensation for those who grasp at the shadow of an art and miss its eternal substance.

The problem is accentuated by certain traditions in the teaching of music, and which are still allowed to exert their baneful influence in opposition to the spirit of thoroughness. To take a concrete example: it is a common experience to meet students who are apparently able to play difficult compositions by modern writers, but who can neither harmonize the simplest melody nor express themselves harmonically at the instrument with any approach to intelligence. If art be the idealism of knowledge, then must the knowledge be great enough to be the cradle of idealism. It is not enough to play, now Beethoven and Schumann, now Brahms and Scriabin, and, at the same time, to know nothing of the central facts of the harmony upon which their thoughts are based and which so strongly differentiate their respective attributes and styles.

An observation of the work of the elocutionist will make clear the issue involved. Here, also, is a form of study which may be superficial, imitative, and largely dependent upon the personality of the teacher. But the student-elocutionist has at least this advantage—that the whole sense of his lines is a matter within his own educational experience. Further, however great this advantage, it is surpassed by the fact that he is able to *hear* the precise effect of each syllable before it passes his lips. Thus, his previous mental study of the poem embraces, not only the means of construction and the verbal sense, but the actual sounds he will presently produce in the act of recitation. Consequently, when the artifices of imitation referring to tone, cadence, gesture, and the like are employed by the teacher, the student is able at once to seize their application to the words of the poem.

This is the point at issue in connexion with music study. The student of music is usually without the basic advantages possessed by the student of elocution. While the latter can hear, speak, read, and even write his lines, the former is, as a rule, without real power in any of these four essentials. Yet the need to know the fundamentals of his craft is not less in the case of the music student. In view of the abstract nature of music, it may, indeed, be allowed to be greater. He, at least, should not be denied an equivalent of the natural advantages common to the student of elocution.

Thus, once again, are we thrown back upon harmony. The inner sense of the musician is reached through the tone-combinations of which he makes such constant use in the act of performance. If, in the earliest days of studentship, these combinations are, through the deft art of the teacher, placed in the foreground of consciousness, the beginning of harmonic experience is the necessary sequel. If, on the other hand, the chord is relegated to the mental background, and the student allowed, possibly for years, to practise unhelped by reference to the harmonic make-up of music, the result must be, not only indefinitely to defer attention to the subject, but to make its later aural acquisition a matter of grave doubt. The ideal time, then, to start the creation of the chord-sense is in the days of childhood; and, it may be added, the ideal opportunity is the private instrumental or vocal lesson.

While all capable teachers will endorse the opinion that, to attain any degree of excellence, harmonic training is essential, not a few may be inclined to think that no time should be taken for the purpose from the already all-too-short weekly lesson. There is but one possible answer to this doubt. The problem is not whether harmony can be included within the lesson, but whether a lesson in *music* can be given with no reference to harmony! In the case of students who go to another teacher for separate instruction in the subject the course is clear. With those who have no resource of the kind, it is plain that they must look to their one teacher for guidance. It may be helpful to point out three ways of dealing with the difficulty.

In the first place, five minutes may be set apart for harmonic instruction at each lesson. The counsel given throughout the remainder of this book is arranged with this contingency in view. In the experience of the author, it is frequently possible, within the five minutes, to obtain from one to four or five demonstrations.

Secondly, the students may be taken collectively in classes. This is an obvious advantage, the demonstrations of each student being an aural experience to the others.

Thirdly, classes may be formed by subtracting five minutes from each private lesson. This stratagem may be employed when, for financial or other reasons, it is impracticable to obtain independent classes extra to the private lesson.

The foregoing reflections represent but a fraction of what might have been said of the necessity for harmonic study in connexion with every type of music lesson. Enough, however, has been brought forward to indicate the incompleteness of the lesson in which the subject is untouched or unmentioned. Enough has been said to reveal the seriousness of the problem to the teacher of to-day.

PART TWO

HARMONY AND THE EAR

SECTION 5. THE APPROACH TO HARMONY.

IT IS already evident that the study of harmony is approached through or by means of (1) the ear, (2) the keyboard, (3) the eye, and (4) the pen. A close examination of the conditions which govern the last three methods of approach reveals the truth that the final issues of success or failure rest with the first. Consequently, no ordinary axiom is involved in the suggestion that, first and foremost, the culture of harmony should start with the training of the ear.

Happily, aural training is now a recognized feature in every healthy centre of musical life. That there are divergencies of view with respect to method and curriculum is a natural consequence of the tentative and largely experimental character of the devices employed for the purpose. It is unfortunate that practically all schools of thought base their practices upon a monomelodic use of the voice, and that the whole of the training is dominated by this very obvious limitation. The virtual result is to afford discipline in hearing and singing intervals, scales, and melodic progressions generally, and to deny the possibility of direct harmonic development through the medium of the voice alone.

No candid writer who has observed the effects of melodic ear-training would desire even to appear to think slightingly of so great an asset to musical education; but it is a serious question whether a training which is limited to the horizontal correlation of sounds is sufficient for the aural education of the musician, or whether the harmonic instinct is necessarily stimulated by progress in melodic insight.

In this connexion it may be pointed out that melodic grasp may be developed to a very fine point of skill unaccompanied by the slightest perception of harmony.[1] Music, however, is—to put it precisely—an art of polyphony. The harmonic grip of the cultured musician is one of his most prized possessions. It is through it that he views and appraises melody. To him, melody can never be a thing apart. His entire grasp of melody is derived from the stimulation of harmony. The fact that purely melodic training does not of necessity lead to harmonic understanding, creates a dilemma from which it would appear that no escape is possible; for either the melodic training is imperfectly conceived and yet more imperfectly carried out, or it is allowed to usurp the place which ought to be given to a mode of training better adapted to the development of the harmonic instinct. It is at least certain that continued insistence upon the horizontal movement of single sounds must bedim any latent power to hear more than one part; and, indeed, because of the enforced postponement, must tend to make the later reception of harmony a task of unnecessary severity.

It is probable that all musicians are agreed upon the desirability of bringing to the birth the sense which perceives the chord and the individual sounds of which it is formed. But all are not agreed upon the means. Not a little help may perhaps be obtained from observing the manner in which an unknown language is grasped by a new-comer to a foreign country.

A stranger, entering the country with no previous knowledge of the tongue,

[1] For a proof of this it is necessary only to refer to some of the melodic tests given to students at many a European conservatory, tests of far greater difficulty and complexity than any to be found in English-speaking countries, and which are often perfectly sung *a prima vista* by many who have no harmonic experience whatever!

would obviously seek for the sound of the words in commonest use. From these, he would form a vocabulary, the words being held *in the memory* solely through their various effects in *sound*. His use of the words would therefore be derived, not from the power to spell or to write them, but from the instinct of pure imitation. He would repeat the syllables as he heard them pronounced by the natives of the country.

Do not precisely similar conditions govern the first steps in the aural grasp of music? The young student is thrown into the land of tone, the language of which is incomprehensible to him until he has collected a number of impressions sufficiently stable to afford a basis of elementary understanding. All around he hears sounds in endless forms of combination. Should he be a student of the pianoforte he has to produce them at the instrument. He has, in fact, no escape from a perpetual reminder of the enormous influence of harmony in the expression of music. If, for the sake of analogy, it be granted that the chord is the musical prototype of the word, it is clear that the first elementary vocabulary of the student should be formed directly from the tone-combinations of music. Some interesting points arise from this line of thought.

How, for instance, may the feeling for polyphonic chord effects be obtained from the mono-melodic voice? It is curious that the instrumental, and particularly the vocal, arpeggio should have failed in conveying the obvious lesson to the musical world. All capable teachers are careful to point out that the playing or singing of an arpeggio is greatly facilitated by a grasp of the harmony upon which it is founded. Their very anxiety to demonstrate the fact indicates, at any rate, how important *they* conceive the understanding of harmony to be. Yet, if merely to play chords upon the keyboard were sufficient to awaken the harmonic instinct, the aural problem would never have been heard of, in connexion at least with harmony. It ought to be more widely recognized that the only way perfectly to show that a chord is held in the mind is by the use of the voice. To sing the sounds of a chord arpeggio-wise, and then, by playing the same chord, to test the reality of the original sensation is the one sure proof that the aural grasp of the chord is secure.

There may be not a few who, while assenting to the conclusion just reached, will advance the opinion that the process is too difficult for the majority of students. They may be reassured. There is no form of aural training so easy to the average student as the imitative singing of chords. Those who find peculiar difficulty in singing isolated intervals are often able at once to reproduce chords containing three or four sounds. The reason for this may be found in the instinct which correlates sounds and letters alike. For example, the two letters C A remain uncorrelated and therefore present nothing definite to the mind, but the addition of T awakens the correlating instinct and the three letters become descriptive of an object. Similarly, the sounds F and A represent an interval impossible of harmonic correlation save by implication. By the addition of C or D, the whole is revealed as a complete chord which, by its relative fullness and sonority, provides an elementary foundation for understanding.

Thus, it would appear that the correct approach to the study of harmony is by the formation of a vocabulary of mental sensations in the shape of chords, lying within the range of the voice and held within the mind by the

action of memory alone. There can be but little doubt that, but for the presumed inability of the voice to adapt itself to the purpose, this course would have been adopted by the pioneers of aural culture. As all forms of verbal language begin with the union of letters in the word, so does music with the union of sounds in the chord. Let but the chord insinuate itself into the mind of the child, let it obtain there a significance equal to the grasp of tune, and an enormous difference of musical outlook will be the immediate result.

The means of discipline needed for this first step are very simple. Day by day, the student sings various isolated chords written by the teacher in a manuscript book kept for the purpose, the number and nature of the chords given depending upon the capacity of the student. The chords should be sung in two ways: (*a*) imitatively, the chords being first sounded at the keyboard, (*b*) from memory, the lowest sounds being played to safeguard the original pitch. While the second way is that at which to aim, it is not necessary to think lightly of the first or to relinquish it until the response of the voice to the sounds is spontaneous and true in pitch.

Two questions may here be anticipated. How far should a teacher proceed with the imitative grasp of chords? Should the chords given be limited to those of the simplest type?

These questions may be answered together. In the first place, it may be confidently asserted that no tone-combinations will be ultimately impossible to the average student. A few weeks of preparation will usually suffice to bring about a quick aural response to comparatively complex chords.

In the second place, it must be remembered that this method of developing the chord-sense involves no references to chordal derivation, to part-progression, or to tonality. In other words, the customary difficulties which beset the tyro in harmony are removed, the one and only problem being that presented to his ear. To revert once more to the now familiar analogy—the student is being taught to pronounce each chord as the student of a foreign tongue is helped to pronounce each word before he places it in the sentence.

These considerations indicate that elementary students may be introduced to the effect of chords which, in a course of conventional training, would be indefinitely postponed; further, that, since it lies within the power of practically all students to sing such chords, there can be no logical reason why they should be deprived of so great an incentive to aural and harmonic development.

One possible criticism of the plan proposed in this Section may take the form of a protest against the particular use of imitation enjoined. Irrespective of the fact that, like speech itself, 'all art begins with imitation', the aural position of the average student must be considered. He has had no help in the early harmonic intaking of music. He has no traditions in elementary chordal consciousness; and when traditions are lacking, it is always necessary to fall back upon imitation. There is, in fact, no other way. Moreover, when used in connexion with the young, the immature, or untaught, imitation is not the evil it is often supposed to be. The darker side of imitation appears when it is introduced to give a semblance of art where no art exists. The singing of chords, whatever the manner of their acquirement, cannot but give new life to the mental perception of music and add zest to its executive reproduction.[1]

[1] This is the place to anticipate an objection on the part of those who conceive themselves unable to sing. No man, woman, or child able to speak can be in that unfortunate position. Furthermore, timorous souls can always fall back upon the

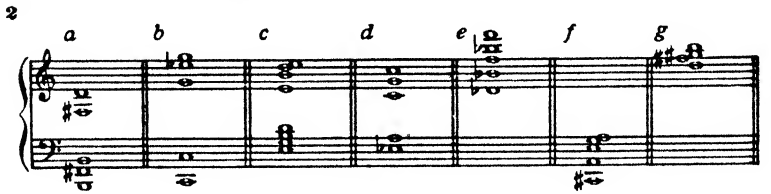
SECTION 6. HARMONIC AURAL CLASS-WORK.

In all probability the most useful side of an aural class is that in which the effects of harmony are illustrated and discussed. It is unfortunate that, in many classes of the kind, no direct references to the subject are made. As a rule the omission is due to a very general presumption that the subconscious faculties are gathering impressions of harmonic effects from the accompaniments played by the teacher. While, to some extent, this may be true of students happy in the possession of naturally receptive minds, it cannot be the case with the vast majority or those of average power. Education demands a proper order in progression from the conscious to the subconscious. If it be desired that the whole class shall participate in the benefits of harmonic training, the attention of every student must be focused upon the subject to the exclusion, for the moment, of every other matter of interest to the class.

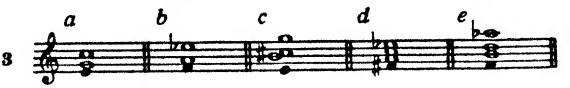
The first duty of the teacher is to create the *chord-sense*. This must be distinguished from the harmonic instinct. The one is the rudimentary manifestation of the other. The chord-sense is that which recognizes the individual effect, in isolation, of the tone-combinations known as chords. The harmonic instinct is that which realizes the rhythmic significance of the tone-combinations in the phrase. The difference between the two may be compared with the formation of a verbal vocabulary and the use of the vocabulary in the act of speech.

It has already been shown how the chord-sense may be awakened into life (Section 5). This, however, is but a preparatory stage. While thus to sing chords should continue a daily habit, the perception thereby gained should now be developed by a minute examination of the musical possibilities of single chords. The Roman numerals prefixed to the following indicate the order of the various devices which may be used for this purpose.

I. Demonstration of the difference between the vocal and instrumental chord. Exemplification of various types of chordal position. Single chords are played in many positions, close and open, at different octaves of the keyboard, and consisting of few or of many sounds. The opinion of the students is elicited with respect to the various effects of which any one chord may be capable.

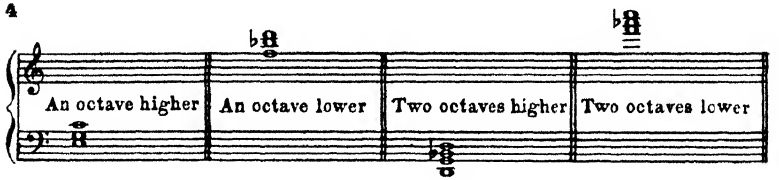


II. The importance of listening to the bass. Chords are played within the range of the voice, and the students are asked to sing or hum the lowest sound in each case.

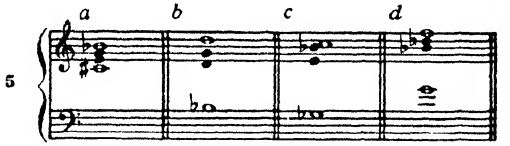


power to *hum*. Nothing more indeed is needed than the ability to prove the reality of tone-sensations by means of the simply used voice. The latter may, it is true, be wanting in some of the finer graces of tone! To hum, then, is a sure refuge and altogether adequate alternative.

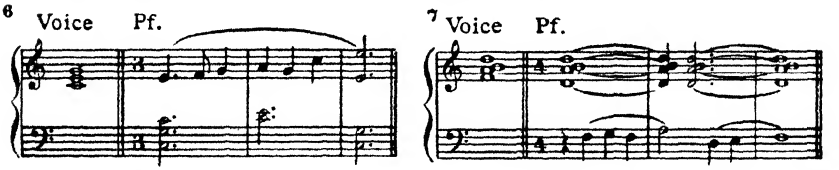
III. The cultivation of the octave sense. The range of the voice is necessarily limited. The instrumental compass extends through several octaves. When the portrayal of harmony is confined to the area of the voice, the immediate results are to narrow the mental view of the chord and to thwart the mental recognition of the part played by harmony in instrumental composition. Consequently, the students are asked to sing chords (*a*) an octave higher than those played, (*b*) an octave lower, (*c*) two octaves higher or lower.



IV. The cultivation of the power to hear the sounds *within* a chord. To the listening sense, this is one of the most valuable of elementary stimulants. Chords are played in various position, close and open, and the students are asked to sing any sound which appears to them to form a part of the combination. The tendency of beginners in harmony is to hear chords in the mass, that is, as pure unities of tone. As a rule, they are as little conscious of the individual sounds of a chord as the average musician of the overtones which enrich a single sound. The slight form of analysis entailed in the effort to identify intermediate sounds is an immediate corrective of this attitude, the inevitable sequel being the formation of the habit which searches within a chord to obtain a clearer apprehension of its characteristic effect.



V. Observation of the relationship of a chord to a free part moving above, within, or below the sounds of the actual chord. Short tunes are extemporized by the teacher based upon single chords, the latter having first been sung by the students. A rudimentary understanding of the movement of melody upon basic harmony will result.



VI. Elementary perception of the decorative aspect of harmony. One of the greatest difficulties in the mental assimilation of harmony arises from the plain chordal form in which it is usually taught. This practice is virtually universal, and invariably proves a stumbling-block to the beginner. Harmonic decoration is one of the great facts of instrumental music, and the identification of harmony thus treated is necessary from the earliest stages of study. A start is made by embellishing single

chords, the latter being sung both before and after and, in some cases, during the process of embellishment at the instrument.

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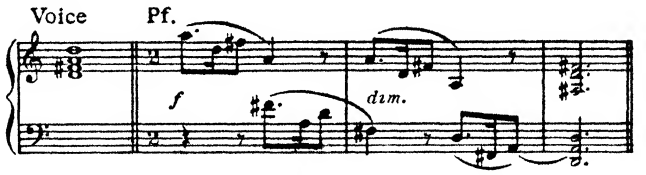

VII. Perception of the various positions possible to one chord and known as inversions. For example, a chord is played (B♭–D–F) and the students are directed to sing the two remaining positions (D–F–B♭ and F–B♭–D).

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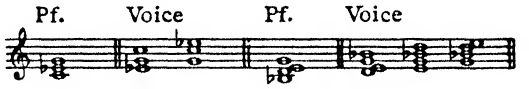

The ground is now prepared for the development of the harmonic instinct. As before, the Roman numerals indicate the order in which the devices should be taken.

I. It is well at first to fall back on imitation. Examples, each consisting of two chords within the range of the voice, may be given for vocal reproduction on the same lines as before. Preferably, these chords should consist of a discord and a concord, the resolution of the former helping the students to realize the full coherence of effect which marks the progression of the two chords. No further discrimination between concordance and discordance should, however, be attempted at this stage.[1]

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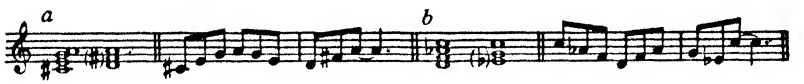

II. An elementary perception of the nature of concordance and discordance. No subtlety of treatment is desirable. An entirely rudimentary method of approach will make the distinction between the two on the ground of completion or incompletion. A more advanced plan will bring the phenomenon of resolution. When the latter point is reached, the students may be directed to sing two successive sounds, the first being a member of a discord, the second the sound of resolution in the following concord, the parts unsung being played by the teacher.

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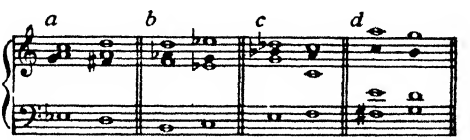

III. Continued observance of the respective effects of concordance and discordance. Examples are played consisting of two chords and formed

[1] An attractive demonstration may be obtained by dividing the class, one division singing the first chord, the other the chord of resolution.

variously as follows: Con–Con. Dis–Con. Con–Dis. Dis–Dis. The opinion of the students is elicited after each example.

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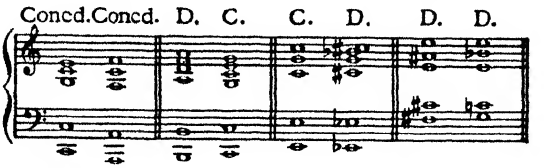

IV. The decorative treatment of passages founded upon two chords. The devices of embellishment should range from the simplest—in which no other than harmonic sounds are used—to the most ornate, the one invariable condition being that the students are not allowed to lose their consciousness of the basic chords.

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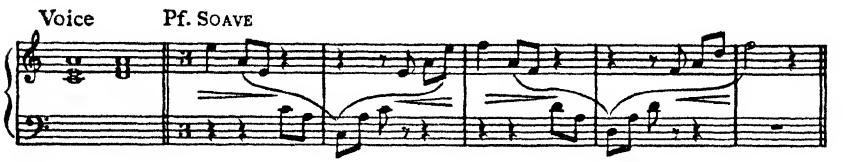

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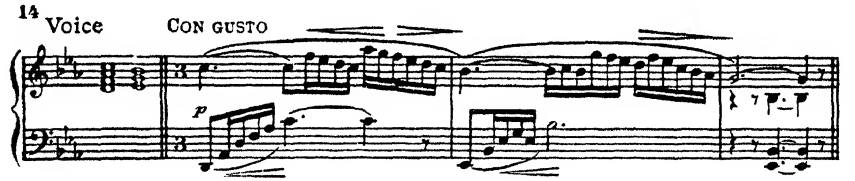

V. The extemporization by the teacher of short tunes, each based upon two chords. The progressions suggested in III may be variously used.

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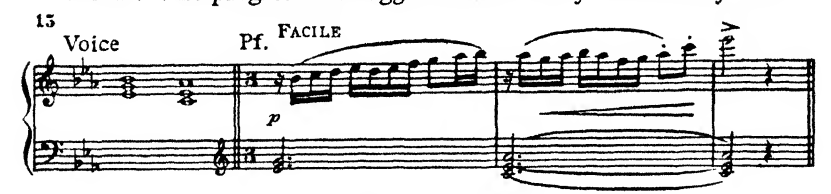

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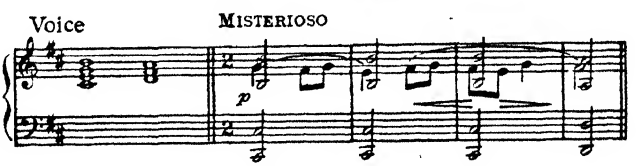

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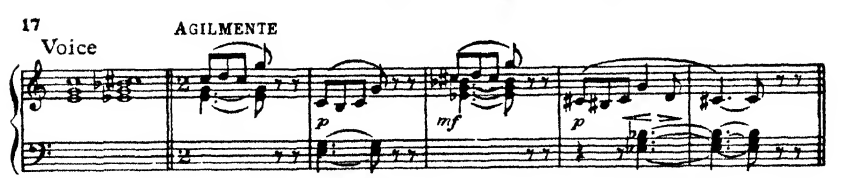

VI. The cultivation of the cadence sense. Three cadences only should be used in preparatory work: (*a*) the full-close, (*b*) the half-close, (*c*) the

interrupted cadence. The students may describe the respective effects by the words—*COMPLETE, INCOMPLETE, UNEXPECTED.* In all probability, the most helpful method of illustrating the simple operation of the cadence is to extemporize trite melodies of one phrase, the last two sounds of which are harmonized to form a cadence.

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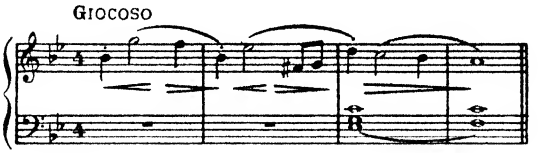

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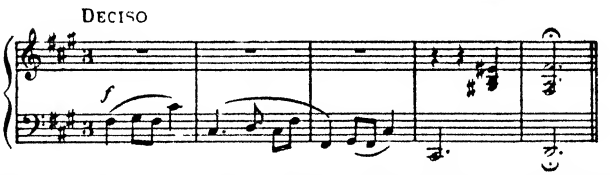

VII. Perception of four-part vocal harmony reproduced on the pianoforte. Although, for some time to come, the students will not be actively engaged with harmony of this type, a preparatory grasp of the fact of part-movement is one of the earliest of aural needs. Examples consisting of two chords in four evenly distributed parts are now played, the students being called upon to listen to each part in turn and, ultimately, to sing any one part desired by the teacher.

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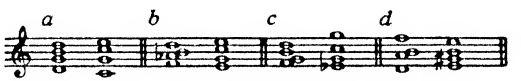

There is no student who has acquired the power aurally to receive two chords with perfect understanding but will desire forthwith to increase his store of sensations. Naturally, he will assume that the next step will involve the use of three or more chords. He must now be taught, however, that further progress depends upon a thorough knowledge of the diatonic scale.

The major and minor scales should be approached through harmony. To this end, every scale sung by the students may be harmonized by the teacher, the choice of harmony being determined by its suitability to the diatonic nature of the scale-melody.[1] Each scale should be sung in many ways; for example, (*a*) starting or finishing upon various degrees, (*b*) omitting certain degrees, &c.

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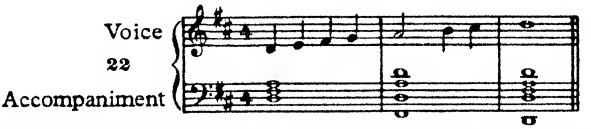
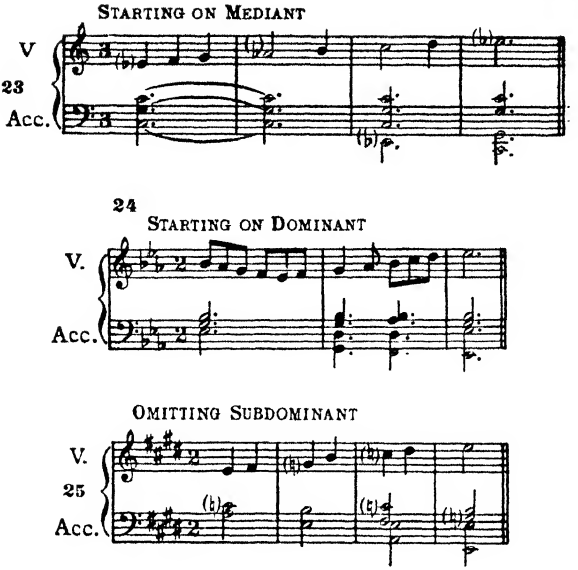


[1] Obviously it is well to begin with the simple harmony of the tonic, as in the first two examples.



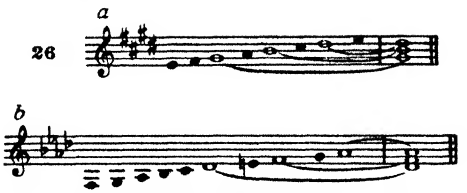
The following issues connected with the mental grasp of the scale merit close consideration.

Firstly, the attitude of the untaught mind towards the scale is probably not unlike that with which the letters of the alphabet are received. A correlation may be built up by the aid of rhythm, but if no attention be given to the medium which reveals the co-ordinating significance of the various sounds, the result can only be a one-sided form of development in which the rhythmic instinct is developed at the cost of the harmonic.

Secondly, it is but reasonable to assume that the first correlation attempted in connexion with the scale should be harmonic. For example, to sing the 1st, 3rd, and 5th degrees, followed immediately by the practical demonstration of the chord by the teacher, must issue in a clear grasp of the three sounds as a single chordal unit. Sung as intervals and with no reference to the chord implied, the sounds would possess to the average mind a mere melodic meaning, and any mental correlation would refer only to the melodically conceived scale.

Thirdly, the mental effect of each scale-degree is derived solely from harmony. The aural purport, so to speak, of any one degree depends upon the chord with which it is heard. Thus, the fifth degree—as the 5th of the tonic chord, the 3rd of the mediant, or root of the dominant, &c.—differs vastly in the respective effects it produces in the mind. When, in brief, the scale is viewed through the clarifying influence of harmony, every degree is felt to be instinct with life and with innumerable shades of meaning and diversities of reference.

One of the immediate results of a harmonic knowledge of the scale is the power to form each of the diatonic concords directly from the scale-degrees. This power is the beginning of true chordal grasp. Thus, after having played a scale, the teacher may ask the students to select and sing the degrees which form the supertonic triad. He will then play the chord and follow it by other chords, thereby illustrating the effect of the triad in relation to the general harmony of the key.



Ability thus to form chords from the diatonic scale is a sign that imitation is yielding to understanding. In other words, the student is becoming free to originate simple chords within his mental consciousness. The rest is relatively easy, and needs but perseverance and the impulse of daily effort.

A question may here be asked with reference to the length of time necessary for the discipline outlined in this Section. Those who have never before experimented in this direction will probably be greatly surprised when they discover the aptitude in the aural grasp of chords displayed by the majority of young people. Rapid progress in chordal grasp may therefore be confidently anticipated. At the same time, the duration of the period of aural chord training is of secondary importance. With little children—and no child can be too young to sing or hum simple chords—the question can hardly arise. Indeed, the real answer is not to be found in a purely supposititious limitation of time, but in a review of the exact purpose of the discipline. The student who has mentally absorbed a few chords, who can sing them or *think* them, is in an infinitely more musical and more intellectual position than his comrade, maybe, in whose mind the tone-combinations of music are so many inert masses of unrealized significance. The one is at least alive, and every new chord absorbed will bring yet more life; the other may be musically dead, be he never so brilliant in the physical mastery of instrument or voice.

As a matter of undeniable fact, the pursuit of the aural side of harmony will engage the energies of average students for a considerable period. This does not necessarily mean that they will be precluded from entering the stages of keyboard expression and of reading; but it does mean that their first attention must be given to the intaking of harmony through the ear. Moreover, the lesson will be impressed upon them by every capable teacher, that every step gained in the aural appreciation of harmony is a definite advantage to the whole of their musical adventures. Whether they wish to listen to music, to perform with intelligence, to read with fluency, or to write interestingly, real and enduring progress can alone be assured when, in all these things, the first reference is to the ear.

SECTION 7. PRIVATE AURAL WORK.

An intelligently conducted aural class may be an inspiration. But, whatever the conditions under which it is carried on, it cannot, as a rule, be more than a weekly event in the life of the student; and therein lies the danger to his view of the relative importance of aural training to his work in general. He is expected to practise at his instrument every day; yet he is virtually encouraged to believe that concentrated attention to the instrument of his inward sensations may be limited to direct effort which takes place but once a week! An unused ear is of all things the most fatal to musical development, and an ear used directly from week to week only is the next-door-neighbour of an unused ear.[1]

[1] This remark must not be misunderstood. The ear is, of course, engaged during daily keyboard practice, though often, it is to be feared, in a *general* way only. The claim in the text is for a form of *particular* aural discipline, during which the mass of the effort is concerned with the listening function.

Consequently, the aural class fulfils its highest purpose when it stimulates the student towards a form of daily effort.

In all probability, the strongest argument for daily aural study is derived from the faculty of memory. Like the sounds and meanings of the words we hear and use, the tone-sensations of music are retained in the memory; and success in both forms of expression depends, not only upon a gradually increasing store of impressions to remember, but upon the continuity of the effort made to remember them.

Private aural work may be considered under three heads:

PREPARATION. EXPERIMENT. CORRELATION.

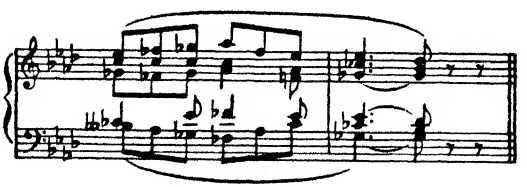
The first refers to the work of the student in relation to the teacher; the second, to the part which he himself plays in the development of hearing power; the third, to the influence of this form of study upon his practical work at the instrument.

PREPARATION involves the study of material which may conduce to fuller understanding at the forthcoming class or lesson. The custom which accepts attendance at an aural class as a matter of routine and, in practice, ignores the subject between class and class must be frankly suppressed, and habits of forethought and prevision substituted. Should no definite ' home-work ' be allotted by the teacher, the line of thought pursued in the last class attended should be developed, every point being tested in practical detail.

The singing of memorized chords, described in Section 5, should occur at this stage. Day by day, the student will test the power of his memory to hold the chords written for the purpose by his teacher, with the determination always in his mind that they must be sung perfectly in tune at his next lesson.

EXPERIMENT entails that the student should set himself the task of discovering chordal effects in the music he is studying at the moment.

Aural experiment, even if carried beyond the point of actual apprehension, can do no harm to his general development. To grasp new and unexpected sound-combinations is an immense help to the probably more elementary work done in preparation for the class. Look, for instance, at this chordal progression from Schubert's *Moment Musical*, Op. 94, No. 2. Without



touching upon questions of harmonic derivation, the student could give particular attention to the effect of the chords, and, by reducing each to the compass of his voice, obtain the greatest help from trying to sing it in tune.

The effect of experimental work upon the aural sense differs radically from any similar process in connexion with the tactual and visual senses. Almost irremediable harm may follow ignorant methods of keyboard practice; the eye may be misled with the most unfortunate after results to the grasp of notation; but the extreme sensitiveness and flexibility of the ear render it, to a very large extent, immune from many of the consequences which follow

the misuse of the other senses. The greatest calamity which can happen to the ear is not *mis*use but *dis*use.[1]

The following tests are suggestive of others which may be supplied by the teacher or, if possible and far more profitably, by the student himself.

I. Each of the inner parts of the following progression to be sung or hummed, the three remaining parts to be played in both cases.

28

II. A single chord may be mentalized in various ways. The chord must first be sung and played; then, by an imaginative aural effort, transferred to other keys. The following fragments roughly indicate the process. A cultured musician would aurally accept the first chord in an entirely different way at each change of key, and this affords a clue to the nature of the effort required. The chord is tonic in (*a*), dominant in (*b*), and so on; and an attempt must be made to obtain the inward effect of the chord in those aspects before the progressions are played as a final proof of grasp.

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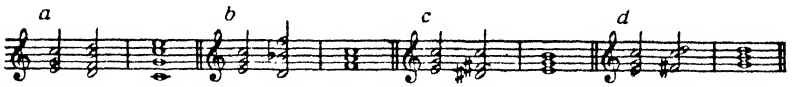

III. A single sound is sung and its pitch identified. The sound is then *thought* as a member of various chords, each chord being sung and verified *afterwards* at the keyboard.

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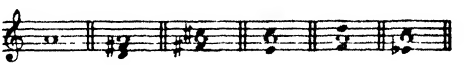

IV. Singing auxiliary sounds between the members of various chords. This useful device may subsequently be extended to two or more chords.

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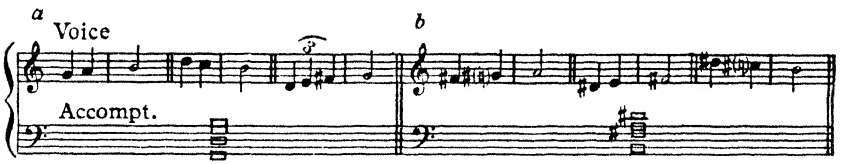

V. A single sound is sung and its pitch identified. The sound is *thought* as an auxiliary sound, and then resolved upwards or downwards after the chord is played.

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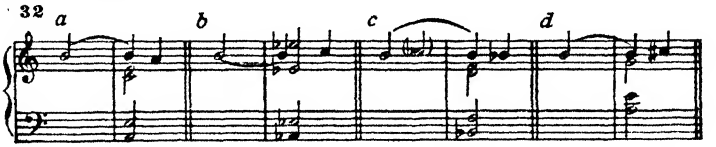
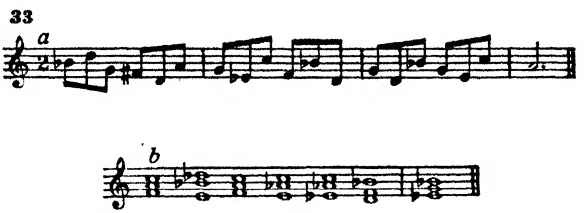


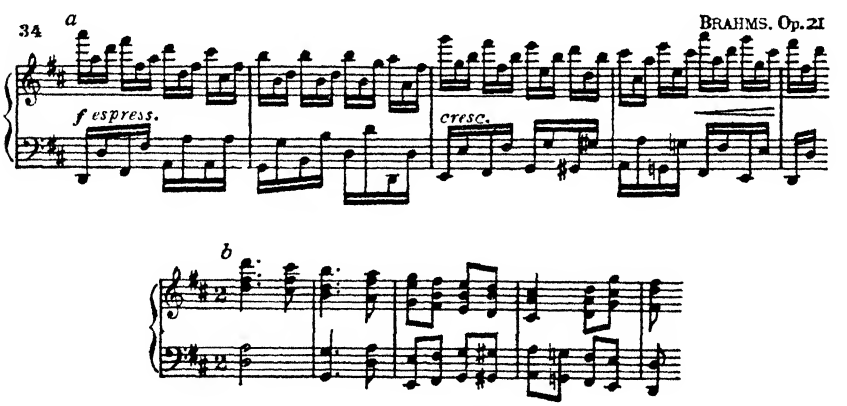
[1] An exception may perhaps be entertained with respect to *taste*. It is manifest that low forms of music reach the mind through the ear, and that, to this extent, the ear should be safeguarded. Unfortunately, however, solicitude for the young people of the present day cannot secure them from the intrusion of perverted forms of art; moreover, taste is formed, not by automaticity on the part of any one sense, but by the exercise of a selective power which accepts the worthy and rejects the debased. The responsibility is thus thrown upon the mental life, and this virtually leaves the question as it is stated in the text.

VI. Modulation with the voice. A most salutary form of aural discipline. Very simple forms only should first be attempted. Subsequently, comparatively difficult modulations will be found practicable.



CORRELATION, though at first less exciting than experiment, is of great moment to growing musicianship. Let it be assumed that the student has just grasped the effect of a simple concord. Is he, perforce, to remain content with his modest acquisition and not immediately to apply the insight gained? The answer may be found in every composition he is studying at the instrument. An elementary player can take a piece like T. F. Dunhill's *Raindrops Fall* from 'Harvest Time' (Oxford University Press) and discover common chords in nearly every bar. A more advanced player can make a similar examination of the third movement (Minore) of Beethoven's Sonata, Op. 7, and find common chords in bars 1, 5, 9, 10, and 15. In either case the student will ascertain the relation of the chords to the respective keys and, what is more to the point, will sing each chord, reducing it to the compass of his voice. In this way he will prevent his knowledge from passing into a mental *cul-de-sac*, which is the invariable penalty exacted from those who do not link up the power gained in aural study with the everyday work at the instrument.

Should the student be yet more advanced, he can examine a passage like the following (*a*) and reproduce the harmonies in simple form (*b*). There is no limit to this kind of enterprise; and every phrase thus dealt with adds enormously to harmonic grip and technique.



The practice which compares the retention of verbal language with that of music is healthy and should be encouraged. It is possible to learn much from so suggestive an analogy. Thus, to hold a sentence of a foreign tongue in the mind, it is essential that the memory should function throughout. By remembering imperfectly, the pronunciation of the words might be lost,

though the sense remained. Something of this kind may happen in memorizing chords or chordal progressions; the intervals may not be remembered exactly. Some of the chords will be simple to remember, others will be difficult. A selection must therefore be made from the chord-sensations to be memorized; and this must be done by the individual student who alone can be in a position to differentiate between his own problems on the ground of ease or difficulty.

PART THREE

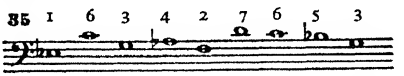
HARMONY AND THE KEYBOARD

SECTION 8. THE STUDENT AT THE KEYBOARD.

IT IS assumed that, in agreement with what has already been said of the principle of overlapping (Sect. 3), the student has been engaged during the time of aural training in some form of keyboard study. If a singer or string-player, the temptation will often have assailed him to neglect this side of a musician's equipment. It cannot be too strongly impressed upon all students of music that there is no compensation for the absence of at least a moderate practical knowledge of the pianoforte keyboard.

The student-pianist is often curiously remiss in his management of the keyboard. If he be asked to make the simplest harmonic demonstration, the hands which seem so free in the rendering of pieces exhibit the most extraordinary clumsiness in finding their way about the keyboard. This is partly caused by a want of tactual facility of the kind associated, in particular, with the contour, octave-system, and general arrangement of key-groups on the keyboard. Harmonic demonstration does not exact a high standard of executive power, but it does require a properly systematized and non-visual knowledge of the keyboard.[1]

Chief among the difficulties of the keyboard is its structure with reference to tonality or key. The strikingly different combinations of the digitals pertaining to the twelve keys, major and minor, often require separate and systematized study, both of the mental and of the tactual kind. Definite exercises are necessary to develop this phase of the tonal sense. The following is a helpful formula, and the passage implied by the degree-figures should be rendered by each hand in every key, major and minor, and in every octave of the keyboard. Scale practice is unilluminating in the very point at stake; the obvious reason being that it is almost entirely dominated by the mechanical influence of a set fingering for each scale.



A word ought to be said on behalf of those students who are timorous in using the pianoforte as their vehicle of harmonic expression. It has already been observed that the possession of advanced executive powers is not essential. Each student should use such power as he has at his command to the best advantage, and this axiom covers every consideration in the case. Should he be altogether ignorant of the pianoforte, he can, at least, first learn the position of simple chords by rote; and the possession of a very few chords will form a nucleus whence power will presently spring into life.

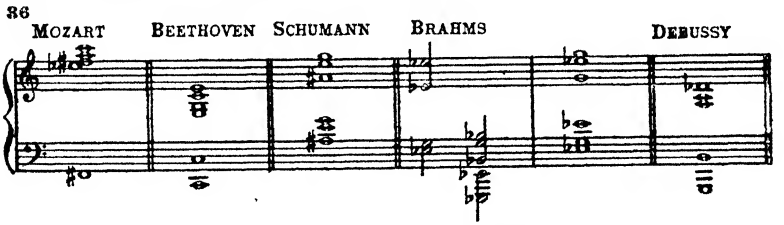
Keyboard demonstration is particularly valuable to the student of singing, usually so ardent in attending to the spectacular side of his work and so indolent in attacking the subjects by which alone he becomes able to rise from the slough of mediocrity.

As a matter of fact, keenness of harmonic vision is not the prerogative of brilliant performers on the keyboard, but is the assured possession of all who are willing day by day to think out their problems and, irrespective of their actual powers as players, to use the instrument simply as a proof that they have thought sincerely and consistently.

[1] Vide *Musical Competition Festivals* by the author, page 48. (Kegan Paul.)

SECTION 9. THE CHOICE OF CURRICULUM.

All students, whatever their musical attainments, should first be tested in the 'placing' of single chords. Presented under the best possible pianistic conditions, the chords, now contracted, now amplified, should be divided between the hands and judged on the grounds of sonority and general effectiveness. The student should be directed to listen to (*a*) the bass, (*b*) the uppermost sound, (*c*) the effect of the distribution of the inner sounds.



This simple point gained, the question of curriculum is the next to be considered. Much will, of course, depend upon the aural grasp, tactual power, and musical outlook of the individual student. Broadly viewed, three distinct courses are available:

I. To study the tonal concords in the simplest way, omitting all early references to chordal inversions. This plan is manifestly adapted to the most elementary.[1]

II. To include the whole of the tonal harmony, concordant and discordant, together with the inversions of every chord.

III. To connect chords freely, usually by means of common sounds and without direct reference to tonality.

Of the foregoing curricula, I and II are identical in the one respect that the training suggested is on a directly tonal basis. On the other hand, III offers a complete change of method.

Students with sufficient insight and time at their disposal might attempt II and III concurrently. Such would therefore commence simultaneously with the type of work suggested in Sections 10 and 12. At the same time it must be admitted that the directly tonal method (II) is the more important. When a student betrays facility in handling chords at the keyboard and is patently able to link them in either way, the tonal method should, even then, be placed first. Although with many a modern composer, key—as the word has been understood in the past—seems to be a gradually diminishing quantity, it is impossible to forget that the classics of the art present tonality as an integral element of their origin. Consequently, even though key be conceived as a property to be ultimately merged into another means of expression not yet made entirely intelligible, the elementary student should, for historical as well as for aesthetic reasons, be trained in the sense through which alone it is possible to receive the full message of Bach, Mozart, Beethoven, and the masters of the post-classic school.

SECTION 10. THE FOUR FORMS OF STUDY.

The first impression of the student who embarks upon harmonic demonstration at the keyboard is usually one of surprise at the power placed, so instantly and so unexpectedly, within his grasp. As the years pass and the method

[1] A series of simple tests of this nature is provided in the author's *Centre-Points in Pianoforte-Study*. (Curwen & Sons, London.)

becomes universally employed, the surprise doubtless will also pass; yet a consciousness of the greatness of the personal element which enters into the playing of the simplest chordal progression will for ever remain a symbol of encouragement.

The principal aims of demonstration may thus be summarized:

A. To accustom the student habitually to transfer to the keyboard his aural impressions of harmony.
B. To keep him in constant touch, not only with the plain chordal expression of harmony, but, more especially, with its myriad forms of presentation in the idioms of instrumental music.
C. To cut ever more deeply the mental images of the tone-combinations which he hears and plays.
D. To awaken the power of extemporization.
E. To make the pianist, the string-player, and the singer far more useful members of the musical community than they can ever be in the absence of the power to express themselves in simple harmony of their own making.

Four essential methods of harmonic demonstration are apparent. They are as follows:

1. The Chordal.
2. The Decorative.
3. The Intensive.
4. The Cadential.

The FIRST form of study refers to the effective cohesion of chords presented plainly as in a hymn-tune, but without attention to parts or part-movements. A start is made with any two chords of a key. These the student endeavours to link effectively in different registers of the keyboard and in every one of the twelve keys. Changes of key may at first form the main difficulty, and care will be necessary to note those keys which accordingly claim prior attention in practice.

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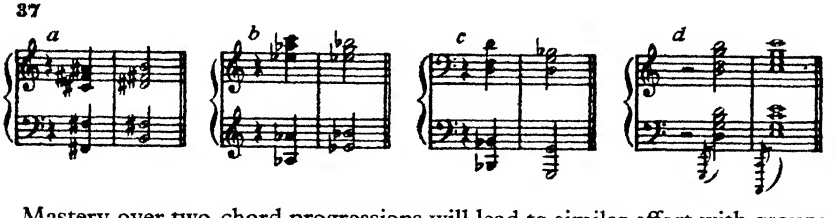

Mastery over two-chord progressions will lead to similar effort with groups of three chords.

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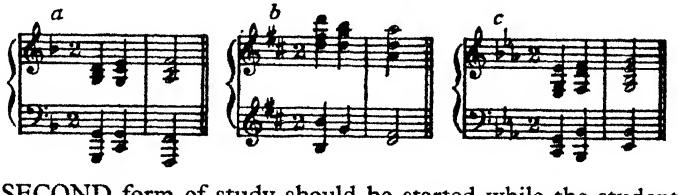
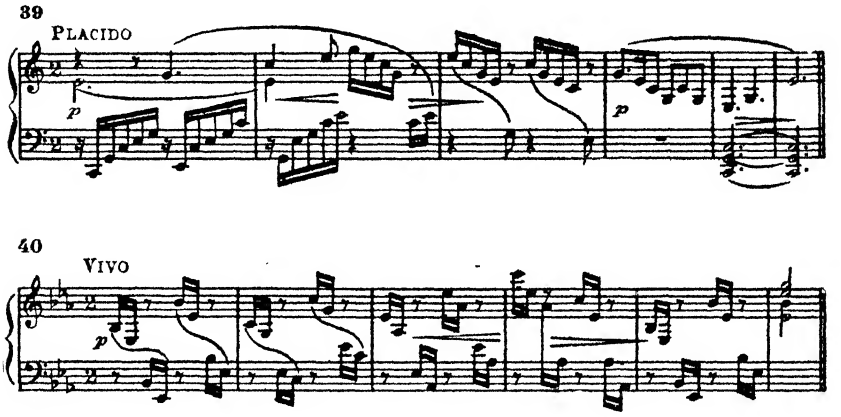


The SECOND form of study should be started while the student is engaged with the simple demonstration of single chords. It is often thought that, however effective demonstration may be with a series of chords, it is hardly feasible to extract much musical interest from the decorative treatment of

a single chord. Clearly, from many examples in great music, composers have not been of this opinion. In *The Rhinegold* the gods cross the fateful bridge to an accompaniment of many bars of music consisting merely of the decorative presentation of one common chord! Nothing is more certain than that it is possible to obtain a rhythmically inspired thought from one chord, without the assistance of a single foreign sound.

The element of decoration may be introduced under very simple conditions. The mere conventional breaking of the sounds of a chord is a decorative expedient, and, if no more can at first be secured, the tactful teacher will be satisfied. The student must, however, be helped to perceive that decoration may become a part of the expression of his personality. To this end, he should experiment with various forms of rhythmic figures and, if possible, secure additional interest from attention to the phenomena of climax and repose. In short, he should try to make of every example effective pianoforte music.



If the use of decorative harmonic demonstration lead to flexibility of thought, it is still more true that it enables the student—at first insensibly, ultimately consciously—to perceive the need for a rhythmic presentation of every example. This may indeed be described as the climax of his endeavour. At its best, harmony must be a dead thing unless it be quickened by the moving spirit of rhythm. Perhaps in this fact may be found the greatest of all reasons why the writing of harmony should be deferred until the student has wholly seized the message of rhythm, and, through a previous course of living exemplification at the keyboard, has proved himself ready to transmit the perfectly rhythmèd progression to the page of manuscript.

The THIRD form of study is of deep significance. In musical effort and perception, the mental reactions of the average student are often amazingly slow (Section 2). Any device which may tend to quicken those reactions cannot but be valuable to his work in general. It is in this particular connexion that the study of harmony at the keyboard may be made to yield results unrealizable by any other means.

A simple progression of two chords, if repeated a number of times in different positions and throughout the compass of the keyboard, is often transformed into a formidable problem. The difficulty is caused by the clash between the mental reactions and tactual instincts. In a test of this kind, both hearing and playing power must be equally alert.

Hence, if only for the foregoing reasons, the intensive treatment of harmony virtually becomes an obligation.

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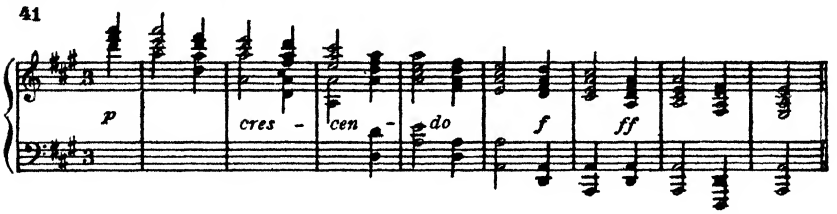
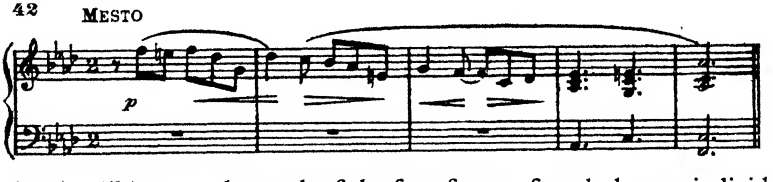


When the tactual reactions are markedly slow, a less strenuous method of intensification may be discovered in the mere octave repetition of each progression;[1] but this is to be recommended only when very urgent conditions call for its use. It should be the aim of every student to master the intensive side of each progression in the way just exemplified.

The FOURTH form of study emphasizes the importance of a clear expression of the cadence. The process consists of the improvisation of short melodies, the cadences being formed by the harmonization of the last two, or three, sounds. The exact purpose of this device must be clearly understood. It is usual to direct the beginner in harmony to think of the melody. In the same breath, he is told not to forget the bass! Frankly, it is impossible that tyros, whose minds are absorbed by the problem of forming and placing chords, can have any mental energy left for attention to the movement of any single part. Yet, if only for rhythmic reasons, it is impossible to leave melody out of the question. The advantage of the expedient just described is threefold: firstly, it stimulates the sense which perceives the cursive aspect of harmony; secondly, it develops the feeling after a true rhythmic cadence; thirdly, it reminds the student of the simple fact of melody, a reminder of distinct value in view of later stages of study.

42 MESTO



Thus it will be seen that each of the four forms of study has an individual part to play in the development of the student. The first appeals to the chord-sense; the second to the rhythmic, imaginative, and inventive faculties. The third supplies a quickening element to the aural and tactual reactions. The fourth begins the training of the mind in the directions of melody and cadence.

To apply careful thought to each is to confess that by keyboard demonstration alone is it possible to ascertain, beyond the reach of doubt, that the exact lessons have been intelligently grasped.

SECTION 11. THE HARMONY OF THE MINOR MODE.

Every capable teacher will testify to the relatively greater difficulty experienced by the average student with the harmony of the minor mode. It is, of course, not to be expected that a full understanding of both modes can be obtained with equal ease. There are individual characteristics of the minor

[1] See Grades 11, 19, &c. on page 22 of the book referred to in the footnote on page 25.

which are often extraordinarily difficult to the student of harmony. Methods of the past have not dealt with these features as educationally as their nature demanded. To insist that the mind, to which the minor element is as yet a mere abstraction, should be able to grasp the notation of that form of key or even to inspire the pen to write in it, is but another of those false positions into which students have been thrust by the want of proper didactic organization. When the mind is aurally uninformed and the tactual instinct is undeveloped, notation becomes a sheer tyranny. Those who have had suitable aural and tactual preparation find no formidable difficulty in appreciating the minor mode and the harmony peculiar to itself.

The harmonic treatment of the minor key should be introduced at the earliest possible moment. It is of the highest consequence that, from the first, the student should realize the absoluteness of the tonal effect induced, for instance, by sounding the dominant and tonic chords, whether they occur in the major or in the minor.

Those who have been trained under the supposition that, for clear tonal effect, the minor is indebted to the major, often find it difficult to accept the entire independence of the minor. There is no greater force than the harmonic to build up sane and workable views upon the original authenticity of the minor phase of musical expression. It is harmony alone which can make plain the characteristic differences between the major and the minor.

In this connexion, it is particularly valuable to play examples of harmony identical in both major and minor. The unity, in either mode, of the following progression proves the parent key to be the same in both instances. No change of *key* is apparent in passing from one to the other. The change is in environment and atmosphere.[1]

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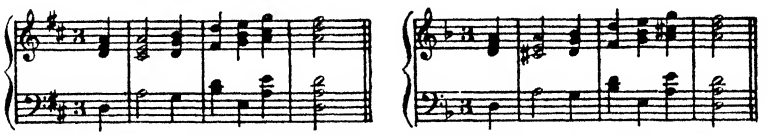
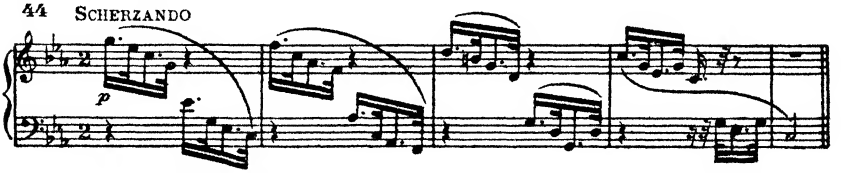


The first three chords taught in the major scale are usually the primary triads of the tonic, dominant, and subdominant. Immediately after, the corresponding chords should be studied in the minor.

44 SCHERZANDO



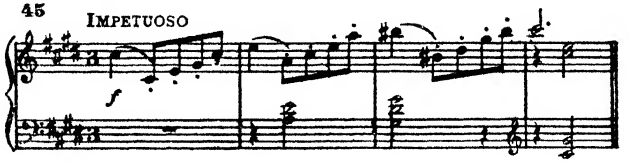
Up to the point just illustrated, the discipline involves the equal treatment of the two modes. It is not needful in early work to go beyond these chords. By their great contrast with their major counterparts, they form in themselves

[1] It is to be hoped that the misleading term 'relative minor' will speedily pass into oblivion. Born at a time when musicians lacked the needful knowledge to form stable theories of various phenomena peculiar to music, it has passed into a term of mere identification. If the term were a true description of the thing it identified, no harm would follow its use; but, since accuracy is at stake, the example given in the text proves beyond doubt to which minor scale, assuming the preservation of the term desirable, it ought to be applied.

a sufficient basis for the establishment of the minor mode in the mentality of the student.

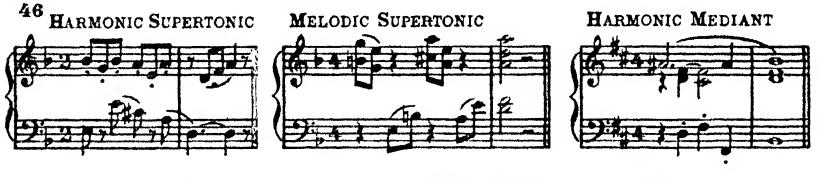
In the meantime, progress should be made with the tonal concords of the major key, the grasp of these eventually greatly helping the reception of those triads of the minor which yet remain to be studied. Ultimately, the submediant chord of the minor scale may be brought into play.

45 IMPETUOSO

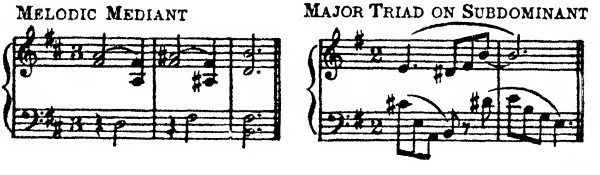


The difficulty attendant upon the treatment of the minor key becomes specially apparent when the quasi-discordant triads are approached. The diatonic harmony of the major scale is formed upon an invariable scale, that of the minor springs from two scales. To the twofold form of the triads on the supertonic and mediant may, of course, be added other chords, such, for instance, as major triads on the subdominant and minor seventh; but, except in the case of the keenly harmonically inclined, it is inadvisable to introduce them into early work.

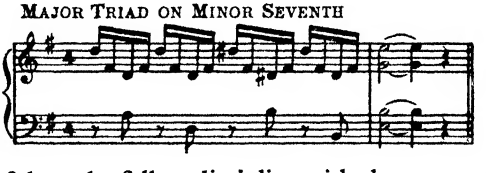
46 HARMONIC SUPERTONIC MELODIC SUPERTONIC HARMONIC MEDIANT



MELODIC MEDIANT MAJOR TRIAD ON SUBDOMINANT



MAJOR TRIAD ON MINOR SEVENTH



Extremely useful results follow discipline with the supertonic and mediant chords of the minor key. Their mastery at the keyboard brings about a sense of infinitely greater security in dealing with the relatively simpler forms of the major key. At the moment, they represent the high-water mark in the problems presented to the student; and, it is scarcely needful to add, their conquest indicates healthy progress in harmonic keyboard mastership.

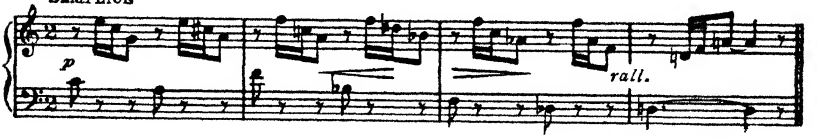
SECTION 12. CHORDAL AFFINITIES.

During the early stages of study, the selection of chords is, as a rule, dominated by the claims of tonality. As soon as sufficient tonal grip has been secured, attention may be given to linking chords from another and less restricted point of view.

It is a harmonic law that chords may be combined in two ways: firstly, by the force of key; secondly, by chordal affinities.

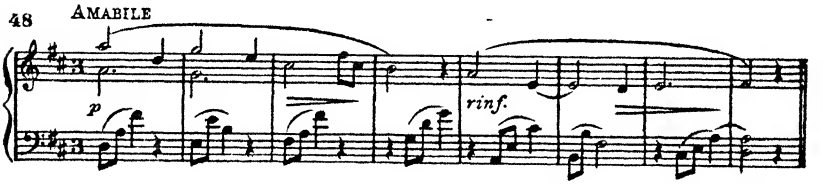
In general, chordal affinity is a condition of harmonic cohesion in which sounds are common to two or more chords. Chords thus connected possess a kinship wholly distinct from that induced by tonality, and this affords a simple explanation of the good effect of such a passage as the following:

47 SEMPLICE



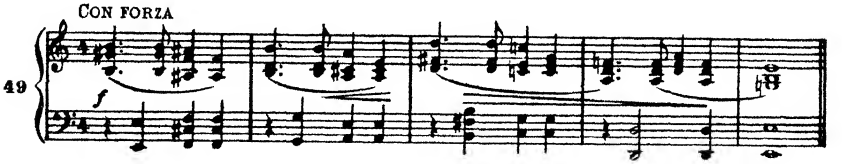
Chordal affinity may, however, exist when the chords concerned possess no sound or sounds in common. Accordingly, an explanation of their kinship must be looked for in another direction. The chords of the following progression are, in every case, referable tonally to one key; yet, until the cadence, no two consecutive chords have a single sound in common. The source of the chordal cohesion characteristic of this example is antecedently tonal. It is the tonal influence which enables chords, on adjoining degrees of the scale and which have no common sound, to be linked together with perfectly good effect.

48 AMABILE

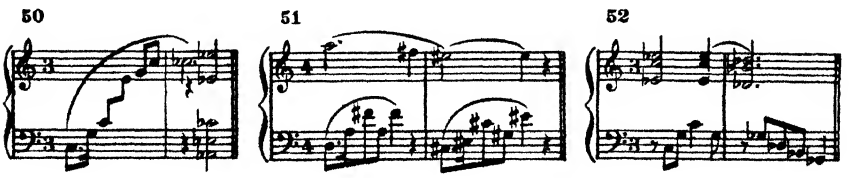


It is a natural conclusion that, if it be possible to link chords of this nature within the confines of key, the principle may be carried into effect in any progressions of the same kind which lie outside the range of conscious key. This is the explanation of the good harmonic effect of the following:

CON FORZA



An obvious consequence follows from the foregoing: that it is possible to link together any of the twenty-four major and minor common chords. The following examples illustrate this truth:



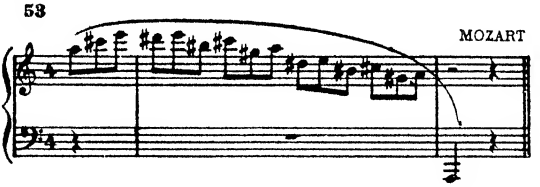
It is important in all progressions of this kind that the student should seek for musically effective keyboard demonstrations. Chords, which at first seem antipathetic, may be made to coalesce effectively, and the effort to achieve this is not the least of the advantages to be obtained from this phase of study.

SECTION 13. THE TREATMENT OF AUXILIARY SOUNDS.

The most cursory examination of the harmony of any composer will reveal the presence of many sounds which are foreign to the respective chords; foreign, that is, to their accepted tone-formation. The use of such sounds is not restricted to music of an advanced type. It is rare to meet a simple piece—of the kind, for instance, written for children—in which the employment of auxiliary sounds is not an integral feature.[1] It is therefore only reasonable to conclude that the direct appreciation of the auxiliary sound, its effect, purpose, and manner of use, should form a part of the early training of the student.

Understanding of this nature is highly essential to every practical student of music. A singer called upon to execute a florid passage formed of intermingled harmonic and auxiliary sounds, or a pianist in a like adventure on the keyboard, must, in the absence of proper knowledge, be reduced to the shallow stratagem which learns the sounds in studied rotation; and, most certainly, must forgo the power which, conscious of the exact relationship of the sounds, renders the passage with mental freedom. The following passage, for instance, can be immediately reproduced in any key by a player who understands the harmonic principle upon which it is built.

53



These facts lend yet greater weight to the contention that, as soon as the mind is aurally alert, all phases of harmony should at once be exemplified at the keyboard. Engaged with paper-work, the student would be occupied for a considerable period with the intricacies of part-management before he could be in a position to illustrate the use of auxiliary sounds. Freed from the premature stringencies of part-writing, he is able to anticipate phases of harmonic truth; and in no department of musical effort is the need greater for such anticipation than in study of this kind.

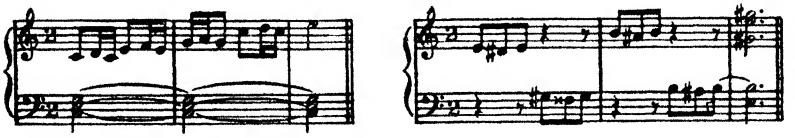
In the study of auxiliary sounds it is expedient to adhere to the classification which places sounds of the kind in two categories—the *unaccented* and the *accented*, each being subdivided into the *upper* and *lower* species.

The first attempts may most helpfully be made in connexion with a single chord. Both upper and lower forms should be included in this rudimentary demonstration, but the radical distinction between them should be observed. While the upper auxiliary should be diatonic, the lower should invariably be

[1] See *Wasps' Dance* by Olive Lloyd, Bk. II of 'Gleanings' (Oxford University Press). The following are auxiliary sounds:—2nd quaver of bar 1, 2nd quaver of bar 9, 5th quaver of bar 21. These are repeated in other bars.

taken at the distance of a semitone. In view of the presumed standard of the student, this distinction is imperative; moreover, two advantages follow its adoption: (*a*) a keener appreciation of the respective effects of the tone and semitone, (*b*) an understanding of the difference between the pitch of lower auxiliaries in modern music and of those in the works, for instance, of J. S. Bach.

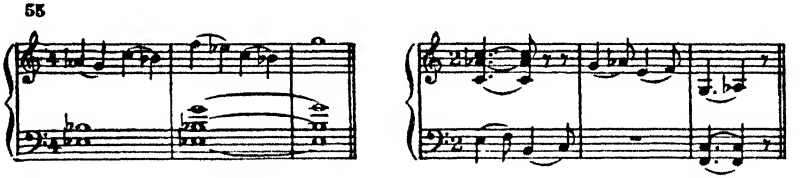
54



Apprehension of the accented auxiliary sound is but a step onwards. This phase of the sound is of even more vital importance to music. Not only is it responsible for much of the 'colouring' of harmony, but the personal style of a composer is often largely concerned with his use of accented auxiliaries. The power of such sounds to transform the original effect of simple chords is stupendous. In this case, also, a foundation of understanding must be laid in the early days of studentship. The instrumental and vocal student alike meet examples in comparatively simple compositions. The appreciation, nay, the very treatment of these sounds by pianist or singer depends upon an intelligent recognition of their presence.

The course pursued with the unaccented auxiliary can also be adopted with the accented variety. Both the upper diatonic and lower semitonal types may be used to embellish major and minor chords.

55

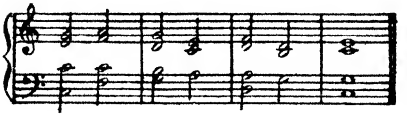


The transition from the use of one chord to two or more will be found easy and natural, provided that the original understanding of the dominating principle be thorough. The absorption of an auxiliary sound by its neighbouring harmonic sound—a process technically known as *resolution*—must be felt as the compensating influence which controls the use of dissonance. Much will have been already done towards the comprehension of this great fact in music; but the added power which comes with keyboard demonstration is never more needed than when it is given to the hands to prove the mental grasp of so subtle a feature as the resolution of discordance.

It is often very difficult to an elementary student to distinguish between the sounds of a harmony and those which are foreign to it, particularly when all are sounded together. The problem is intensified by the conflicting views of theorists upon the subject, who are apt to forget that all dogmas relating to the art of music are of educational value only in proportion as they derive their existence from judgements formed by the ear. It is frequently of great assistance to hear a passage of plain, undecorated harmonies, and, subsequently, with accented auxiliary sounds added to each chord, each being resolved during the continuance of the same harmony. The following is an example. When played in plain form, the extreme commonplaceness of the harmony will be forced upon the attention. When played in embellished form, the

comparative charm bestowed upon each chord by the presence of the auxiliary sound or sounds will be equally remarked.

56



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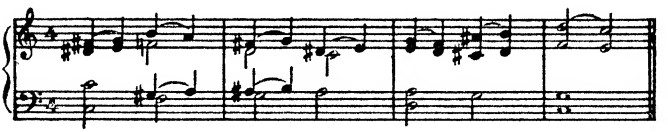
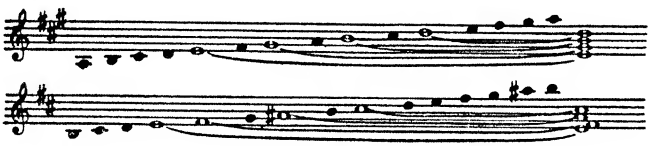


SECTION 14. THE CHORD OF THE DOMINANT SEVENTH.

The chord here treated is the simplest of all discords. It should first be played in every key, and formed directly from the degrees of the respective scales. The following show how the root position or one of the inversions can be sung in every key:

58



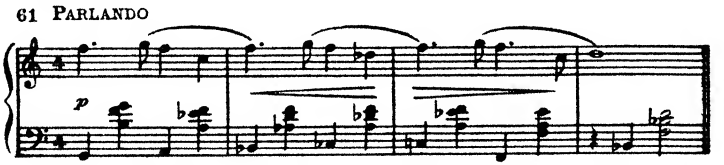
Various tonal resolutions may now be attempted, beginning with the most natural and obvious, or that upon the tonic harmony.

59 RESOLUTION ON SUBDOMINANT

60 RESOLUTION ON SUBMEDIANT

By applying the principle of chordal affinity, the chord can be used independently of the scale-degree whence it is derived. This practice places an interesting series of progressions at the disposal of the player. Thus, each sound of the chord may be regarded prospectively as the root, 3rd, 5th, or 7th of another chord of the same kind. In the following example, the uppermost sound is the 7th, root, 5th, 3rd, and root of the respective chords, the last of which alone fulfils its original function as the chord of the dominant seventh.[1]

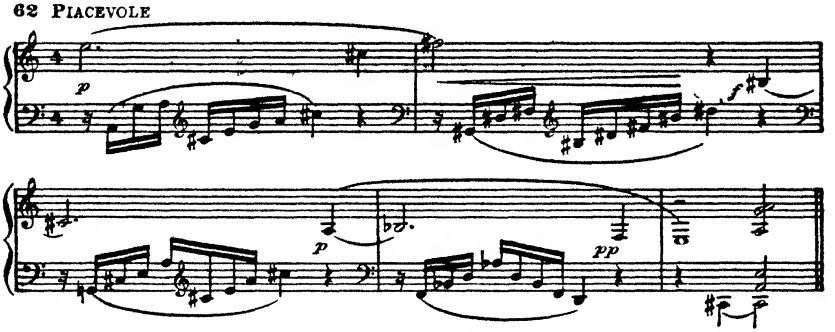
61 PARLANDO



[1] The term 'Dominant Seventh' is scarcely descriptive of the chord when it occurs on other degrees. In the days when it was supposed to be transferable only to the supertonic and tonic, it was renamed the *Supertonic Seventh* and the *Tonic*

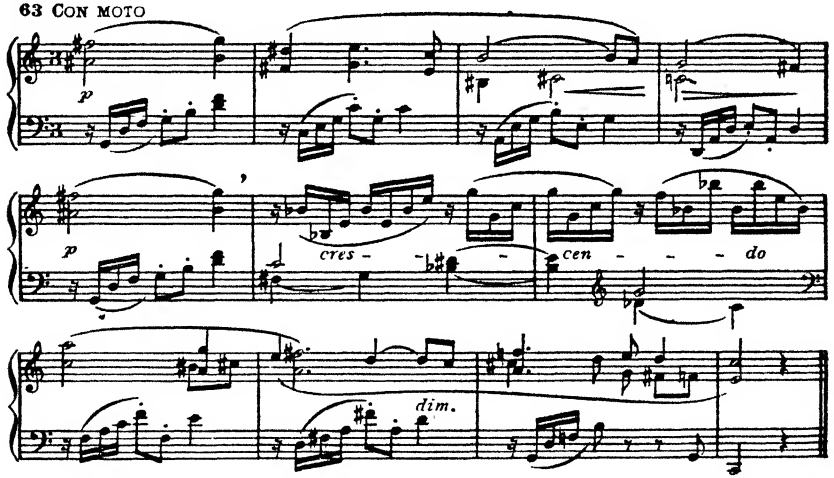
There are but two instances in which it is impossible to link such chords by a common sound. These occur with any two chords separated by a semitone, above or below. An extension of the second phase of chordal affinity described in Section 12 results in the interesting progression illustrated by the following:

62 PIACEVOLE



Accented auxiliary sounds are often introduced for the enrichment of the dominant seventh. A few sounds of this kind are placed in a category apart, and will be considered in a future Section. The following examples are sufficient to show that ample scope exists for the treatment of the chord in this way:

63 CON MOTO



SECTION 15. THE CHROMATIC ELEMENT IN HARMONY.

Clearness of vision is a particular necessity in that part of harmonic study which relates to chromaticism. We have entered upon a period which threatens to obliterate the former distinction between the diatonic and chromatic genera. We are in danger of forgetting that the two are sharply

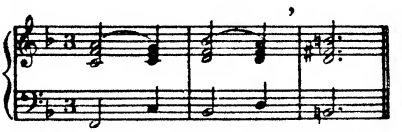
Seventh according as it occurred on one degree or the other. There is now no reason for retaining these terms, and it is probably best to use the old name whatever be the position of the chord. No confusion can exist if, by the term *Dominant Seventh*, any chord is understood which is originally formed by a major third, perfect fifth, and minor seventh, the word *dominant* merely referring to the place of its diatonic origin.

defined in the music of the great classic writers, and that much of the charm of their work arises from the skilful and economical manner in which they use the resources of chromatic harmony.

The history of chromaticism is of deep interest. It is a story of a gradually unfolding revelation. Its range includes the two extremes comprised within the strictly diatonic and the practice which freely admits every chord to every key. One useful guiding principle has survived through every change of thought, namely, that success in the use of all harmonies of the kind is measured by the effect of their tonal environment. The following paragraphs illustrate the principle involved.

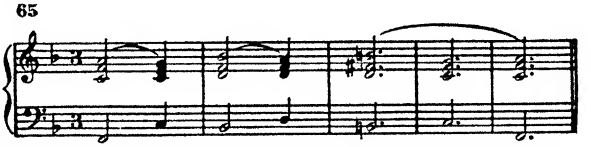
An introductory experiment will show how a chord foreign to a prevailing key-signature may be used. The effect is one of sudden surprise.

64



Yet no chord, be it ever so apparently remote from a key, is necessarily untonal in effect. It may be made so, but the issue remains with the player or composer who uses it. The following progression is a continuation of the last, and no tonal disturbance is perceptible:

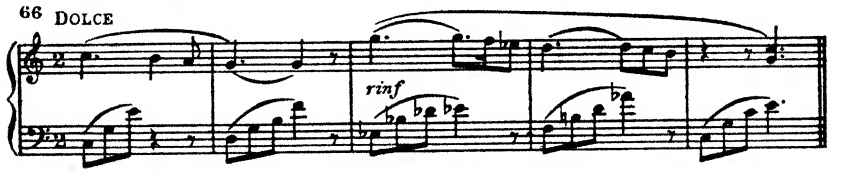
65



Thus simply may the acts of approach to and departure from a chromatic chord be separately illustrated before they are combined in the complete phrase. The illustration, moreover, points the way to the successful treatment of the subject. At first, the student ends his examples upon a chromatic chord. He then inverts the process and starts every example with a similar chord. Finally, he combines the two processes in complete phrases.

Every species of tone-combination may be used in the foregoing manner. Thus, it may be applied to the chord of the dominant seventh upon every degree of the chromatic scale of the same tonic. In the following, the 'dominant' seventh appears on the minor third of the scale.

66 DOLCE



The effective management of one chromatic chord is often the gateway to an experience of harmonic freedom unattainable in any other way. The habit which searches into the effect of chromatic harmony at the keyboard is one of the greatest of all stimulants to the imagination. There can, indeed, be no greater joy than to experiment with a single chord, and to demonstrate how, by suitable environment, it can be brought within the attractive force of the twelve tonics, major and minor.

SECTION 16. MODULATION.

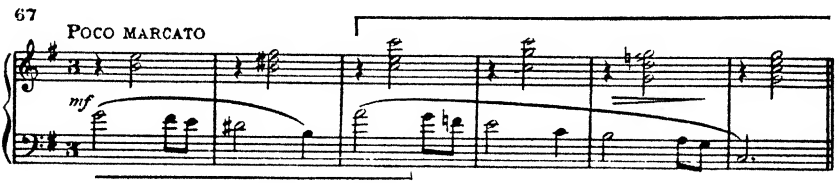
The simple power to modulate ought to be within the reach of all who have mastered the early stages of practical harmony. All intelligent modulation depends upon the following:

A. A tonal sense.
B. The power, aurally and tactually, to refer any given chord of one key to a new tonal position in another key.
C. Facility in the decorative presentation of harmony.

It is therefore evident that modulation should be attempted immediately after the study of the tonal concords. There can be no logical reason for deferring it to a later period of study.

Modulation is of considerable help in developing skill in chord-management; and power to make diatonic transitions from key to key is one of the best proofs of mastership in the rudimentary stages of harmony.

A grasp of the tonal variations common to simple concords is the first step. Diatonically, any common chord is a part of the harmony of many keys. This simple fact affords a base for experiment. Thus, a minor chord may be approached in its subdominant capacity and quitted as the submediant chord of another key.



The change of outlook induced by the two tonal aspects of the third chord of the above progression may be epitomized as follows:

A. Aural. *B*. Mental. *C*. Tactual.

A refers to the action of the tonal sense which accepts the change from one tonic to another; *B*, to the purely intellectual observation of the tonal differences, with particular reference to the two chord-relationships of the modulating harmony; *C*, to the change of keyboard atmosphere brought about by the two physical phases of the chord.

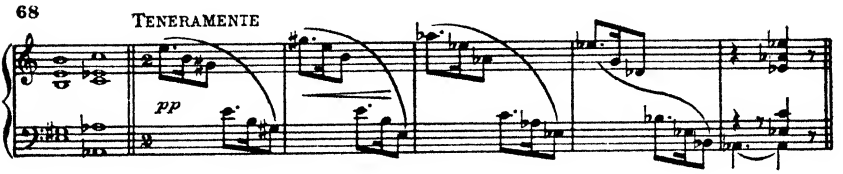
The standpoints involved in *A* and *B* are obvious. The allusion, in *C*, to keyboard atmosphere calls for some explanation.

The tactual instinct is never more subtle than when the hands of the player are conscious of differences between the 'feel' of the same chord in diverse keys. To the cultivated player, the expression of a simple chord conceived mentally as belonging, now to one key, now to another, involves, not only the obvious aural displacement, but an actual change of outlook which extends to the sense of touch upon the keys. Every key has its own peculiar keyboard atmosphere, and a large part of early practical discipline consists of the development of this particular form of tactual sensitiveness. For this reason, it is desirable, during the early study of chord-variation, to encourage the student to play one octave of each scale to which the original chord belongs.[1] This practice stimulates the sense which receives the various tonal messages conveyed by the chord.

[1] Such scales should be played with one finger to avoid the insidiously mechanical influence of the conventional fingering.

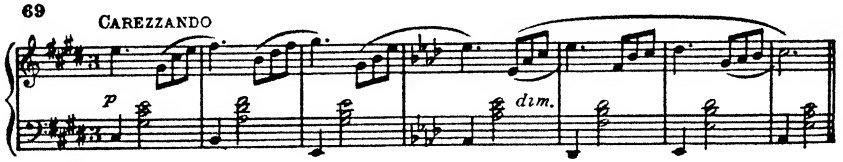
The next step in modulation may be taken with chords linked by a common sound. In this, also, exemplification should at first be limited to concords. Thus, two chords so linked will obviously appear to possess no tonal relationship, but the second chord may be regarded as belonging to a definite key and a few chords be added to establish that key.

68 TENERAMENTE



If the first chord of the above be also made tonally definite, an interesting modulation from the one key to the other is the result.

69 CAREZZANDO

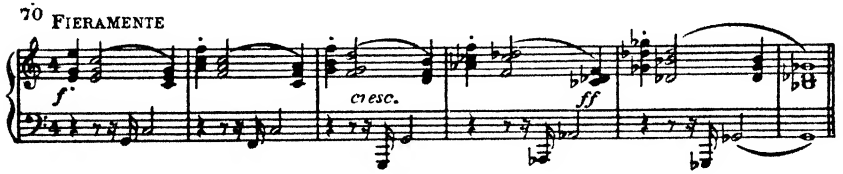


The two forms of modulation hitherto described are alike in the one respect that the establishment of key requires to be absolutely tonal. They are, however, unlike in the manner of transition. In the first form, the tonality of the first key merges into that of the second. In the second, there is a clear point of separation between the keys.

This difference should be carefully observed. The act of modulation can so easily become a loose and irresponsible habit that clear guiding principles are vital to the student. Until modulation has become a part of the harmonic expression of experience, he should not be permitted to attempt an example, the nature of which is not immediately perceptible to him.

When the chord of the dominant seventh is pressed into service, the use of a common sound provides an effective means of modulation.

70 FIERAMENTE



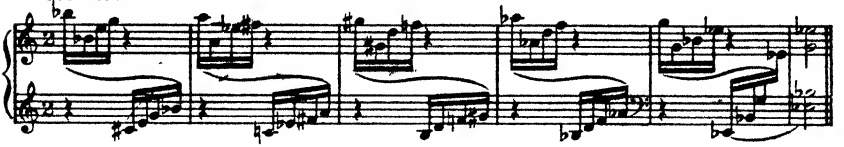
The last device to which it is here needful to refer introduces the chord of the diminished seventh. Since the question of notation is not of immediate moment, it is unnecessary to enter into explanations of the various nomenclatures of this, to many students, most elusive tone-combination. For the present purpose, observation of the chord is limited to the keyboard upon which the forty-eight notational varieties are represented by twelve tactual forms.[1] It is therefore solely in connexion with these twelve keyboard forms that the student is here asked to deal.

[1] The elusiveness of this chord is doubtless caused by the difference between its notational and keyboard forms. Here we find yet another proof of the need to master chords on the keyboard before the subtleties of their notation are discussed.

For keyboard modulation, the chord of the diminished seventh may be considered under two heads:

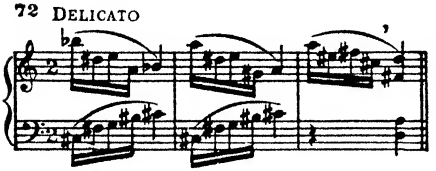
A. Chords of the diminished seventh in semitonal succession, the progression being maintained until the desired key is reached.

71 CON GRAZIA

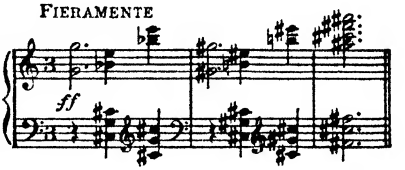


B. The immediate resolution of the chord upon each of the dominant sevenths of the twelve keys, major and minor. Progressions to two keys are illustrated by the following:

72 DELICATO



FIERAMENTE

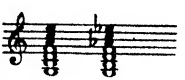


These are the main features of the plan to be adopted in teaching modulation at the keyboard. It is manifest that to be able to pass freely from key to key is one of the signs of harmonic mental freedom; also, that the want of this power is a token of feeble musicianship, and of the misapplication of the means of harmonic education.

SECTION 17. ADDED SOUNDS.

The observation of auxiliary sounds will have prepared the student to understand the substance of this Section. While such sounds may be used at discretion with any harmony, three in particular are raised to a position of almost essential harmonic importance.

The three auxiliaries in question may at first be considered in connexion with the dominant harmony. They are known generally as the 9th, 11th, and 13th. Two varieties are apparent in the case of the 9th and 13th.

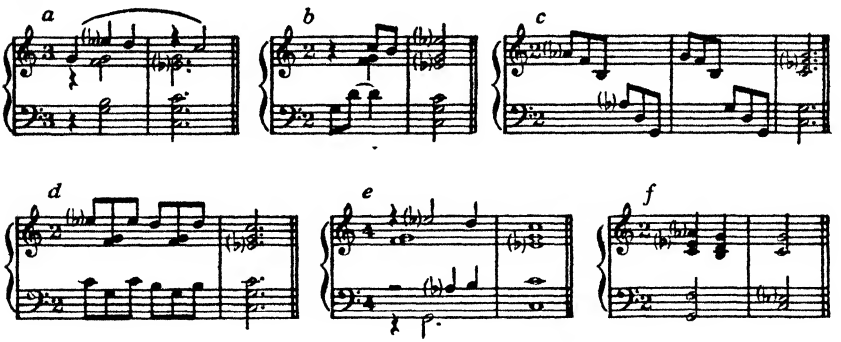


In the earlier days of harmonic analysis these sounds were regarded as a natural and integral part of the dominant harmony. It was not then realized that the primitive form of any chordal combination originates within, and is limited by, the octave. Since, however, the three (five) sounds are recognized as frequent additions to the harmony of the dominant, it is convenient to apply the terminology just given, and, in practice, to refer to them as the ninth (major or minor), eleventh and thirteenth (major or minor).[1]

[1] This may of course be regarded as a concession to the schools. But no harm can be done by applying a particular terminology to these auxiliaries, since, after all, the figures are accurately descriptive of the intervals formed by them from the root. The objection, that the student may think of them as the only possible auxiliaries in connexion with the dominant harmony, is countered by the constant use of auxiliary sounds enjoined throughout this book.

The three intervals may be used singly or in combination. In the following, *a* illustrates the use of the 13th; *b*, the 11th; *c*, the 9th; *d*, the 11th and 13th; *e*, the 9th and 13th; *f*, the three sounds in combination.

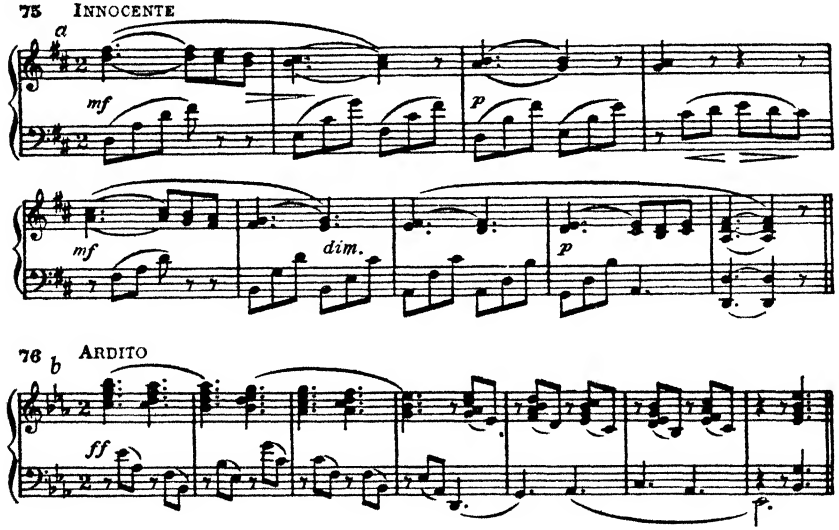
74



Since the dominant harmony is usually the strongest of the tonal forces, the sounds added to it partake of its strength. Similar intervals may, however, be added to any of the tonal concords, though with varying degrees of effectiveness. As a rule, the added intervals are diatonic, and this is productive of very great variety in the interval formation of the chords. The dominant harmony is based upon a major triad and minor seventh, and it is this form of construction which accounts for its strong tonal bias. On no other degree of the scale is it possible, diatonically, to repeat the characteristic formation of the dominant chord and its three added auxiliaries.[1]

To build up dominant chords after the manner here shown, and to form patterns of kindred structure on other scale-degrees are highly illuminative keyboard tasks. In the following examples sounds are added to various tonal chords. In *a*, sevenths only are added. In *b*, further additions are illustrated.

75 INNOCENTE

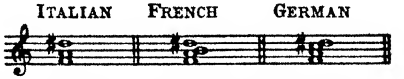


[1] The dominant formation with the three added sounds in question is, however, available, chromatically, on every degree of the chromatic scale.

SECTION 18. THE CHORD OF THE AUGMENTED SIXTH.

This chord usually admits of three forms, these being casually known by the following names:

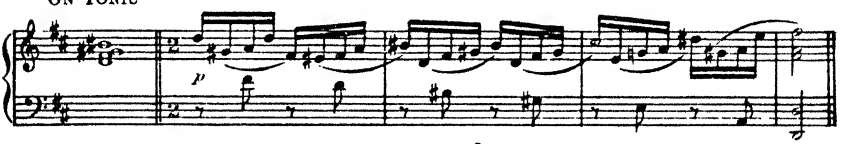
77



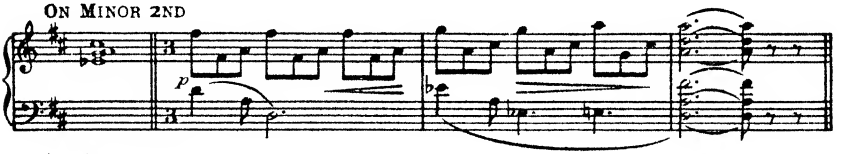
There was a time when theorists fought strenuously to limit the Augmented Sixth to two degrees of the chromatic scale. The chord has shared in the emancipation of harmony from the schoolmen, and experiment will show that it can occur upon every degree of that scale. In all probability no chord can be more fascinatingly used in keyboard demonstration.

The following examples illustrate the Augmented Sixth upon each of the twelve degrees of the chromatic scale of D. As the most distinctive of the three, the ' French ' form is used throughout. It will be observed that, in every case, the chord appears between the tonic and dominant harmony. This expedient is employed as an added proof of the tonal vitality of the chord in each of its twelve phases.

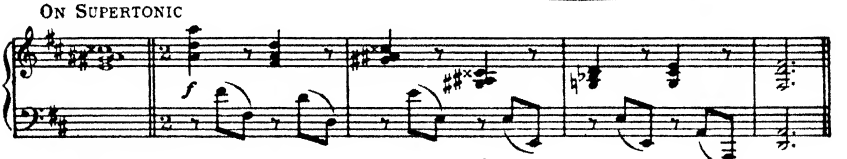
78 ON TONIC



ON MINOR 2ND



ON SUPERTONIC



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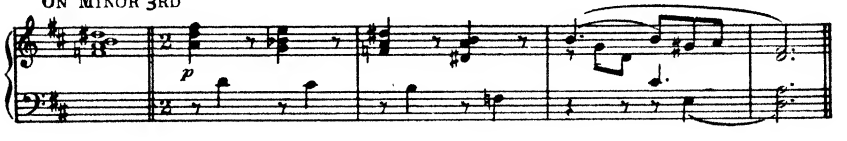
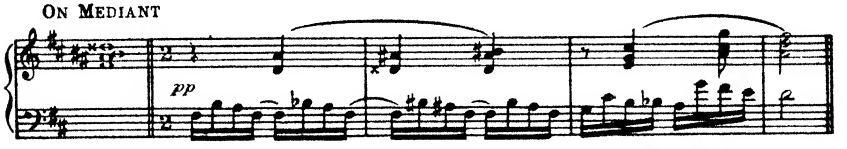
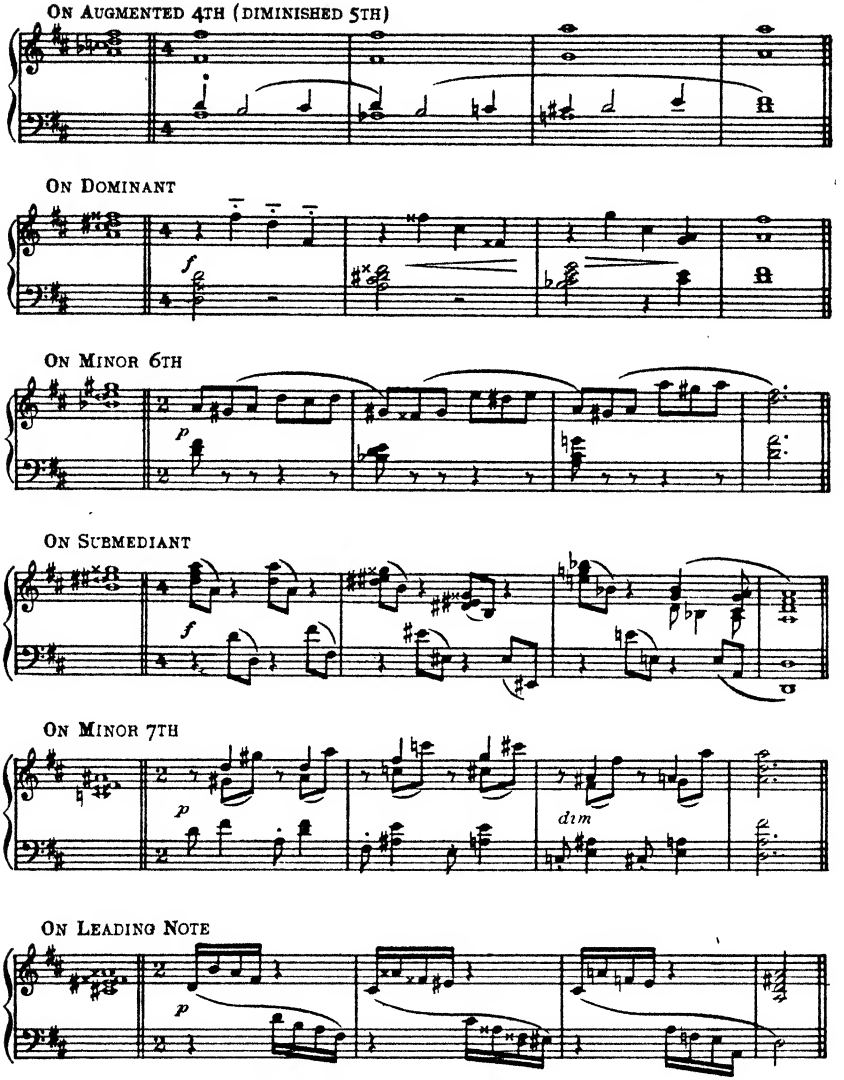


ON MEDIANT



ON SUBDOMINANT



SECTION 19. MELODIC CONSCIOUSNESS.

The student has hitherto been almost exclusively engaged with the *perpendicular* aspect of harmony. This word refers to the mental process whereby each chord is recognized as a tone-combination springing upwards from the lowest sound, the latter being the initial point of aural recognition. A proof of such mental action, or of its absence, may always be observed in the performances of pianists. Those without the harmonic instinct are not heedful to give due tone and character to the bass part; those who possess it, make the bass one of the first charges upon their playing energy.[1]

[1] Yet another proof of the supreme importance of practical harmonic study to the pianist.

A feeling for the perpendicular may therefore be regarded as one of the primary needs in harmonic perception. The birth of the sense should take place during the preparatory aural stage; its development is one of the beneficent issues of keyboard demonstration.

Perpendicular insight, however, illustrates but one side of musical equipment. In actual music the two elements of harmony and melody progress in mutual comradeship. The act of listening to melody involves a *horizontal* mental attitude, and may be compared with the action of the mind in hearing or reading verbal language.

It is therefore evident that the technique required for listening to melody is essentially different from that demanded by the aural grasp of harmony. Either form of technique may, indeed, be regarded as the converse of the other.

The educational treatment of the techniques belonging respectively to harmony and melody is, accordingly, of great moment. Two schools of thought are in evidence. On the one hand, it is held that emphasis upon simple phases of melody during the impressionable years must inevitably lead to general musical enlightenment. On the other hand, it is maintained that, since melody derives so much of its charm and meaning from harmony, it is better first to furnish the mind with the rudiments of harmonic perception.

The issue is therefore very plain. On the one side stand the thinkers who point to the late development of harmony as compared with the antiquity of melody; on the other, those who claim that, in this matter, historical references are of no aid and, for all practical purposes, should be virtually disregarded.

In all probability the question is decided by the musical potentialities of the student of to-day. The lectures he attends, and the books he reads, inform him of the differences between pre-harmonic and post-harmonic music; but the knowledge comes to him in an age saturated with harmonic impressions, often, it may be, received subconsciously, but always involving a mass of tone-sensations antagonistic to the pre-harmonic conception of melody. In consequence he grasps the facts, but the aesthetic comparison between non-harmonic melody and the melody of his own harmonic age leaves him untouched.

Nor is the cultured musician in a different mental position. With his fuller insight he thinks of the two forms of melody—pre-harmonic and post-harmonic—less as containing an evolving principle which led from the one to the other, than as two integrally diverse methods of receiving the sensations of tone. That is to say, he looks at ante-harmonic music through the glasses provided for him by harmonic music.

It would therefore appear that the necessity to place harmony before melody in the curriculum of musical education arises from conditions pertaining to the psychological rather than to the purely musical. The human element is, in fact, the decisive factor.[1]

The first duty before the teacher is to form a species of dual sense in the mind of the student. This need arises of course from the combination of the perpendicular and horizontal in harmonically accompanied melody. In some

[1] It is scarcely needful to remark that it is not intended here to disparage or discourage the singing of healthy tunes in class-work and elsewhere. Young life should be filled with tunes of the kind. But a danger lurks when it is forgotten that a growing appreciation of melody springs from progress in the perception of harmonic colour. There is no escape from the truth, that those who would seize the full message of melody must be forearmed with the equipment which harmony alone can provide.

cases the problem may be met by keyboard demonstration, but the vast mass of students require a form of study in which the melody stands out in prominent relief. This can be obtained only by using the voice. Short written melodies may be supplied for singing or humming, while the hands are engaged in applying various harmonies by way of accompaniment.

The harmonies should at first be indicated and not left to the discretion of the student. The following illustrates the type of work required. The phrase is sung. The under-brackets indicate the chords to be used in the accompaniment.

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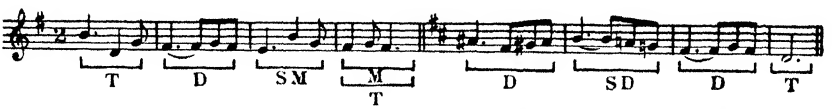

Three reasons may be urged for this course of study: in the first place, a perfect correlation of the perpendicular and horizontal can be the issue only of the previous and separate treatment of each; secondly, concentration upon the melodic element would be impossible were the student also called upon to select the accompanying harmonies; thirdly, very few students will have reached a sufficient standard of harmonic experience to choose suitable harmonies for the accompaniments. The personal selection of harmonies indicates a state of tolerable advancement, and will doubtless come at a later stage.

However serviceable may be the foregoing expedient, it is impossible to be content with a phase of horizontal study limited to a single line of melodic movement. It has been said that musical culture starts with the mental grasp of two real parts proceeding simultaneously. There is little doubt that this pronouncement is fundamentally true, though the precise deductions to be drawn from it are not always as clear as they deserve to be. The pianoforte master, for instance, is conscious of the need to develop the feeling for parts and accordingly gives Bach's *Inventions* to his students. Yet he usually ignores the fact that what the hands do outwardly is not necessarily an index of what is passing inwardly through the mind of the player.

In truth, the cultivation of the part instinct is too urgent to be risked by experimental keyboard stratagems. Hence, once again, we must fall back upon the voice. Let the habit be formed of playing one part and singing (or humming) another, and the problem is already solved. The following is an example of the type of passage required. The voice takes each part in turn while the hand plays in each case the unsung part. In no other way known to the author is it possible to guarantee the dual working of the mind which forms the basis of all consciousness of part-movement.

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Passages of this kind should be formed upon a harmonic basis sufficiently obvious to enable the student to perceive it without difficulty. Consequently, they should be grouped with the harmonies upon which they are respectively founded. In this way the two instincts—the harmonic and the melodic—are provided with a clear field for their unified operation.[1]

[1] A complete review of this important subject with numerous passages of the kind may be found in vol. ii of *Harmony in Pianoforte-Study* (Curwen & Sons, London), from which the examples on this page are quoted.

PART FOUR

HARMONY AND THE EYE

SECTION 20. PREPARATION.

THE STUDENT who desires successfully to grapple with this part of the subject must come to his task with adequate knowledge of the elements of notation. The symbolism of the expression of pitch and time must be native to him. There is no escape from this necessity. It is impossible that a reader, whose eye is untrained in these matters, can take the further step involved in spontaneous harmonic identification.[1]

The use of the eye is not altogether new to the student who has followed the course outlined in this book. But, although he has had to read the examples given in the text, he has not been called upon to think of his own harmonic demonstrations in the terms of notation. The problem now before him is to grasp the infinitely varied methods adopted by instrumental composers to express the florid side of harmonic thought.

To understand what is involved in a grasp of notation, it is helpful to turn to the analogous process in reading verbal language. A well-known line may be rendered as follows:

Behind hollow the hate I dreadful the wood little.

The eye grasps each single word without difficulty, but, since the sense of the line is in abeyance, the correlating instinct is unable to come to the assistance of the reader, and the thought, in consequence, remains obscure.

When, however, the words are arranged in their proper order—*I hate the dreadful hollow behind the little wood*—three advantages become immediately apparent.

Firstly, the speed with which the eye grasps the single words is greatly increased.

Secondly, the correlating instinct is awakened and reveals the sense.

Thirdly, the eye sweeps along the whole sentence under the influence of the verbal momentum.

This most helpful analogy brings to light the precisely similar features in reading musical notation.

The wrongly arranged series of words, in which the eye is concerned only with the isolated meaning of each verbal unit, may be compared with the uncorrelating visual grasp of the eye unversed in the rudiments of notation, and which is therefore compelled to read from note to note.

The correlating process, which rearranges the words and begets the sense, answers to the visual grasp which is sufficiently advanced to perceive the part played by harmony in uniting note to note and chord to chord.

The sweep of the eye along the line, which enables the mind to get beyond the actual sense to the verbal momentum of the words, obviously compares with the visual grasp which seizes the harmonic framework of an entire

[1] This remark calls for the strongest possible emphasis. The mechanism of notation should be perfectly familiar to all who pretend to the slightest scholarship in music. The primary cause for the large proportion of failures always to be found in the ranks of studentry can be traced to sheer ignorance of the symbolism of music writing. In the author's experience, many advanced players and singers of the present day would be totally unable to pass an examination in the rudiments of notation. The so-called 'Elements Book' has, perhaps deservedly, been under a cloud. A turn of the inevitable pendulum will perchance restore it, though possibly under more genial conditions than heretofore.

phrase, and which, because of its power in this respect, is able to read the whole with rhythmic freedom.

Three distinct stages of reading power therefore become apparent. These may be summarized as follows:

A. The *preparatory* stage, in which is involved a complete grasp of the general machinery of notation—time-values, pitch-symbols, and the like.
B. The *correlating* stage, in which the whole of the material is mentally unified; the end being the production of continuity or sense.
C. The *cursive* stage, in which the unity of thought perceived in the stage of correlation is translated into rhythmic action.

The essential conditions which underlie the preparatory stage have already been touched upon. Those connected with the correlating and cursive stages call for close examination.

The end of musical performance is the production or *re*production of musical thought. Production may be achieved without reference to notation, as in the act of extemporization. Reproduction demands equal power both to read and to play rhythmically.

It is here that the crux of the reading problem is reached. Many capable players are wholly unable to read rhythmically, and find a compensation in the constant repetition of passages until the tactual powers are able to do that which is denied to the visual. It is a stratagem of desperation, due to the illogical method which trains the tactual instinct and leaves the visual to a development of pure chance.

What are the conditions under which the eye may be trained to read rhythmically? The answer throws us back upon the three stages. The rhythmic stage is the last of the three. Between it and the first is the stage upon which the power to read irrevocably depends. The rhythmic delivery of a line by an elocutionist would be impossible unless he had grasped the sense enshrined within the words. It is his grip upon the sense which gives the rhythmic impetus to his delivery. The conditions are precisely similar in the case of the musician. He, also, must grasp the sense before he can translate it in the terms of rhythm.

Clearly, therefore, the problem of reading notation is concerned with harmony. Before the reader can read cursively, before his eye can sweep along the phrase and perceive its curves, its bends and sinuosities, it must possess the power to take in the means by which alone the phrase can exist; in brief, the fundamental harmony upon which it is based.

If instrumental harmony were invariably expressed as in a hymn-tune, but little difficulty would accompany its grasp by the eye. But the most casual glance at an instrumental composition at once reveals an endless diversity of floriated devices, all of which it is the duty of the eye spontaneously to reduce to their primitive harmonic shapes.

It is at this point that the hopelessness of the customary training in harmony becomes vividly apparent. The most extensive discipline in plain chordal forms will not of necessity develop the capacity of the eye to seize the florid instrumental expression of harmony. The limitation of harmony to mere chordal exposition means that, during his whole novitiate as instrumentalist or singer, the student gets no solid help from the very medium upon which his reading power must ultimately depend.

It is now easy to perceive why the direct method of teaching harmony at and through the keyboard is the only means of developing the power to

read the decorative forms of instrumental music. The student who has tested Part III of this book does not come unprepared to the task of reading floridly expressed harmony. He has learned what is involved in decoration, and has only to grasp the signs used to express decorative devices in the notation of actual music. To his aural and tactual powers must now be added an ever-quickening response on the part of his visual reactions. In short, he must learn the lesson that, as the hand of the instrumentalist is trained to take in a lightning swoop the swiftly broken chord, the flying arpeggio, or fleet-footed scale, so must the eye receive a training which will enable it, with equal celerity, to grasp the harmonic bases upon which these things are founded.

The first step in the preparatory stage may take the form of an attempt to correlate the work of the three senses. A chord is perceived by a capable pianist in three ways: firstly, by its keyboard 'feel'; secondly, by its sound; thirdly, by its notation. In very few cases among average students do these three processes materialize in simultaneous and equal action. Three simple exercises are involved:[1]

I. The student plays a chord. He sings the sounds, thinking of their position on the staff and, in imagination, visualizing the written notes.
II. The student sings a chord. He thinks (*a*) of its place on the keyboard and adjusts his hand to play it, (*b*) of its position on the staff, visualizing it as in I.
III. The student reads a written chord. He sings it, then thinks of it as on the keyboard and plays it.

To get the fullest benefit from these exercises, the mental reactions should be segregated. Thus, each of the three processes should be individually studied, its separate action and the result of that action being carefully registered.

In the next step, the eye may be occupied with the grasp of chords simply broken and unaccompanied by auxiliary sounds. Schumann's *Little Study*, Op. 68, No. 14, the First Prelude of the '48' by Bach, and the Impromptu in G by Schubert are apposite examples. Isolated passages containing harmony thus simply treated abound in music of every standard of difficulty, and should be selected by the teacher in accordance with the reading capacity of the individual student.

In these first steps towards a visual grasp of harmony care should be taken to exclude all issues which lie outside the one object of study. No reference to the nature of the chords, to questions of derivation or tonality, is advisable. The entire effort should be restricted to the visual observation of simply broken harmony. The result will be the formation of a mental habit which refers each broken chord or arpeggio to its primitive, unbroken form.

What is read by the eye must be proved by the hand. Consequently, each broken chord should also be played in its mentally conceived unbroken form. At first, single chords may be played in this way; ultimately, as opportunity offers, complete compositions.

It is a specially exhilarating experience to play such works as the three just mentioned; musically, rhythmically, interestingly, but with every chord

[1] These exercises may be recommended in every case of difficulty in reading unfamiliar staves. As a matter of sheer necessity, the visual act should be engaged with the Bass, Tenor, Alto, and Treble staves, in careful rotation.

throughout reduced to its primitive state. An example is here given of the opening bars of Beethoven's Sonata, Op. 27, No. 2:

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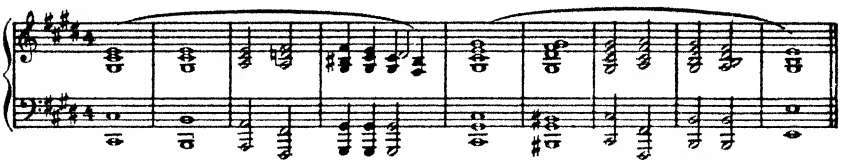


SECTION 21. ANALYSIS.

It may very well be asked what is comprehended in the analysis of harmony. In the case of the cultured musician it is perfectly easy to answer the question. With the individual student, however, much depends upon his general harmonic experience and, in a particular degree, upon his aural capacity. Nor, indeed, may any question of the kind omit the notational problem which is at present in the foreground of effort. Hence, the desirability of analysis may often depend upon the stage of development reached in translating the harmonic forms of notation into sound-shapes.

The effect of musical notation upon various types of mind is a very interesting study, and one of peculiar value to teachers. While harmonic perception is practically always the key to the reading problem, the fact is but rarely apprehended by those whom it so nearly concerns. The analytically disposed—and these are fairly numerous among students—are anxious to penetrate within the secrets of chordal derivation, and it is often difficult to persuade them that to grasp the aural and tactual sides of the harmonic forms used by a composer is, as a first expedient, of far greater moment to their development than the expenditure of energy upon an analysis of chords which are heard with difficulty and demonstrated with hesitancy.

It would therefore appear that the analysis attempted at the present juncture should be limited to the more obvious features of harmonic expression. At the moment, the student will find plenty to satisfy his analytical yearnings in the identification of notational details of the kind provided for him in this Section. Deeper questions of analysis can wait for the writing stage.

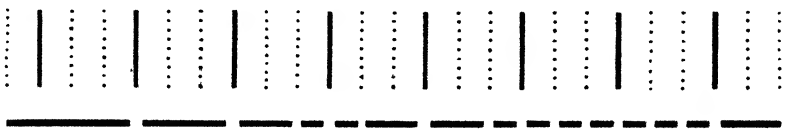
Two fundamental principles dominate the harmonic visual grasp in every form of music:

A. The expression of harmony in areas of varied but definite extent.
B. The indiscriminate use of harmonic and non-harmonic sounds.

The FIRST principle relates to the visual recognition of the duration or prevalence of each harmony of a phrase. A glance at any instrumental composition will show that the various harmonies are not uniformly distributed as regards the time-quantities respectively allotted to them. One harmony may outlast many bars; another may occupy but a small portion of a single bar. Thus, the first bar of Schumann's *Night Piece*, Op. 23, No. 2, contains no less than eight individual harmonies. Conversely, one harmony only is used in bars 13 to 20 of the first movement of Beethoven's Sonata, Op. 31, No. 2.

The work of the eye, in thus distinguishing the starting- and ending-point of each harmony, is of supreme importance to the grasp of the notation. It is the mentality which, through the eye, correlates the various symbols belonging to each harmonic area, and which, accordingly, prepares the way for the hand to reproduce the chord upon which the whole is built.

By way of illustration, the harmonic areas of the first eight bars of Beethoven's Sonata, Op. 26, are here expressed diagrammatically. The dotted lines mark the time-beats. The horizontal black line indicates the areas of the various harmonies. The diagram should be compared with the original.



The SECOND principle refers to one of the greatest difficulties in the visual grasp of harmony. It is presumed that the student has had an efficient aural and tactual training in the hearing and use of auxiliary sounds. He must now apply his perception to the identification of such sounds in notation. He may be led from an examination of the Fifth Variation of Beethoven's Sonata, Op. 26, in which a single auxiliary is used in each harmony, to bars 8 to 21 of the same master's Sonata, Op. 31, No. 2, which contain a large number of examples. Thereupon he may turn to the works of Schumann, Brahms, and later composers, and discover in the works of each a multitude of passages illustrative of the same fact.

An example is here appended to illustrate the greatness of the problem presented to the eye by the decorative devices open to the composer. The chords used in *a* are, in *b*, reduced to their plain, undecorated form.

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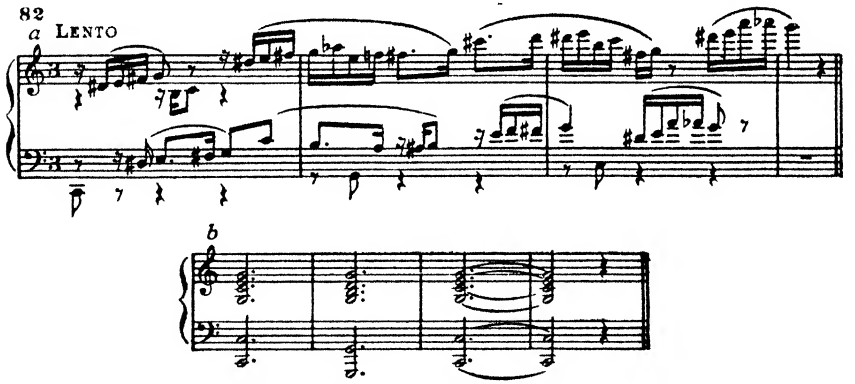

A most valuable and inspiring method of developing the visual grasp is to paraphrase the harmony of passages variously selected from great music. A literary paraphrase may be defined as a free translation of an idea into other words, the sense of the original being, however, retained. In this form of musical paraphrase the matter retained is the basic harmony. Thus, the following phrase from one of Haydn's Sonatas is paraphrased on the following page:

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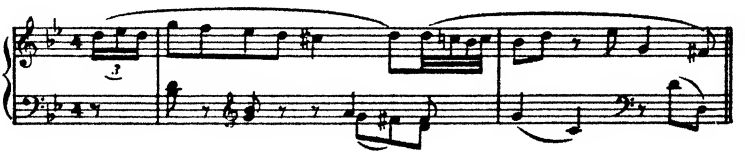

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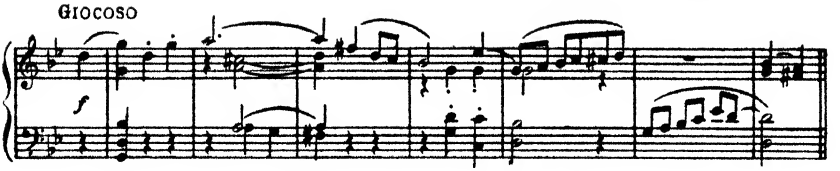

It is evident that a task of this kind requires quickness of visual reaction and, to some extent, power of invention. Moreover, it implies considerable progress in harmonic perception. Indeed, the student may regard the act of paraphrasing as a musical thermometer which will exactly register the temperature of his skill.

In all probability the greatest incentive to reading power will be found in the mental study of music apart from performance. The supreme joy of the musician is to take a score as the average man takes a book, and to be able to hear the music as convincingly and vividly as the other follows the words of language. This, in fine, should be the aim of all musical culture. To reach the experience, thoroughly good reading power is a first essential. How indispensable to that power is a full appreciation of harmony has been adequately proved in this Part.

PART FIVE

HARMONY AND THE PEN

SECTION 22. PRELIMINARY NEEDS.

AT THE beginning of Part IV it was pointed out that to read the notation of music harmonically presupposed a preliminary training in the elements of notation. A similar assumption must be made here. It is imperative that the student who takes up the pen to express harmonic thought should already be able to write notation fluently.[1]

It is impossible to enter upon the subject of penmanship in relation to harmony without turning to the relevancy of counterpoint to the whole question, and, in particular, to the distinction between the harmonic and contrapuntal instincts.

The harmonic instinct is concerned with the ' colour-forms ' of harmony, and with their aesthetic bearing upon musical thought. It does not approach a conception of strict part-progression until a perception of real parts has been developed by counterpoint.

The contrapuntal instinct is absorbed by the progression of the individual parts, and makes use of harmony only to stabilize the musical effect of combined phrases.[2]

Consequently, it is clear that perception of part-movement in progressions which are primarily harmonic is the issue of power obtained from contrapuntal study; furthermore, that such study is the natural and logical way of obtaining that power. When the laws of part-progression are approached through harmony—as, unfortunately, is so often the case—the duties which accrue to counterpoint are foisted upon the study of harmony, with the inevitable result that the mentality of the student is bewildered by the opposite claims of the two forces with which it has to deal.

This, however, is not the only evil which proceeds from the practice of confusing the perpendicular and horizontal elements of expression. By condemning harmony to a servitude from which freedom may be bought only at the price of an altogether problematic perception of part-progression, the student is prevented from advancing in a general knowledge of chordal combinations. The measure of his harmonic experience is his power with the pen in the particularization of parts! Because, for instance, he cannot shape the parts of diatonic progressions he may not be allowed to pass on to the study of chromatic harmony. It is a frequent experience to meet capable performers who play music of every style and of all periods, and

[1] It may be of service to point out that many helpful expedients lie beyond the mere acquisition of the symbols of time and pitch, such as the reproduction of choruses in the staves peculiar to the various voices and the transposition of set passages written for instruments or for voices. A few minutes daily should be set apart for this purpose during the early years of studentship. It is futile to attempt the study of written harmony with but little notational experience in the mental background. See footnote on page 45.

[2] This is a bald differentiation of the parts played by the two forces in the life of the student. In educational work there must always be a clear distinction between horizontal and perpendicular work. Recent didactic works have sought to unify the two, but only with fleeting success. That they are unified in great music, as in Bach for instance, is an unavailing argument; for the achievements of the great represent the issue, not the beginnings, of power. The attempt to lessen some of the difficulties of counterpoint is also doomed to failure. The study of counterpoint may assume another and a new phase, but its characteristic difficulties will remain. The Roman soldiers marching with their leaden soles form a tolerably good analogy of the real problems of the art-student. It is the perversion of such problems, not their existence, which must be deplored.

whose harmonic training has been arrested at the chord of the dominant seventh![1]

It is for these reasons that the student is here presumed to have made so diligent a study of elementary counterpoint that his efforts will already have resulted in the power to think and to write in parts. It should not be imagined, however, that the contrapuntal power actually needed for the first steps in written harmony must, of necessity, be of a high order of merit. Every particle of skill of this kind becomes doubled if not tripled in value as soon as it is applied to harmony. While it is wise continually to increase the skill, the fact yet remains that a very moderate amount of facility in the management of contrapuntal parts is sufficient to warrant its application to harmony.

The main consideration in writing harmony is, as far as possible, to induce the attitude which originates both the choice of chords and the methods of rhythmic expression. In fact the conditions of study should approximate to those appertaining to original composition. While a short period of preliminary discipline may be necessary, during which the harmonies used are definitely prescribed, this should, as soon as may be practicable, be followed by the much more useful and vastly more interesting period of original harmonic expression.

Side by side with paper work the student may quite usefully be engaged in playing from figured basses. Strictly speaking, this phase of discipline ought to form a portion of the work of Part IV, but there are many reasons why it should be postponed to the present stage.

In no case should immature harmonists be permitted to use the figured bass as a writing exercise. So undesirable a practice can be described only as a perversion of educational order. When read, as it should be, at the keyboard, the figured bass is a most valuable tonic. Its conventional use—in the form of a mathematical filling-up of chords—is derogatory to musicianship and humiliating to the imagination.

It is not proposed that the harmony indicated by figured basses should be presented at the keyboard in vocal shapes; that is to say, in strict parts. Reason and imagination alike demand that the forms common to the instrument should be attempted. The effective use of rhythmic figures, of floriated passages with auxiliary sounds, should be the aim in every demonstration of the kind.

The ideal figured bass would consist of untimed notes, thus affording an opportunity to the player to test his skill in the rhythmic as well as in the decorative rendering of the examples. This may of course be done with the customary basses, generally to be found in harmony books, by the simple expedient of ignoring the given time-grouping. Perhaps the sanest counsel would urge that each figured bass should be played in two ways: (*a*) in the time of its notation and with the harmony in plain, though not necessarily in strict, part form; (*b*) freely as regards time, and with the harmony in embellished form.

A question is often asked with reference to the nature of the score best adapted to the calligraphy of harmony. This clearly depends upon the type

[1] If any proof be needed of the extremely slender harmonic outlook expected from performers of undeniably high rank, it is necessary only to refer to the requirements in this respect of prominent examinations in which a written harmonic test for performers may extend only to the chord of the dominant seventh with inversions. This, in so many words, means the authentication of the idea that, in the education of a musician, harmony is a side-issue, and may not, for a moment, rank with the personal management of instrument or voice.

of music to be written. Music in vocal parts or for strings demands, indisputably, that each part should be written upon a separate staff. The use of the pianoforte score for these purposes is narrowing, and tends to throw the parts out of perspective.[1] The ideal plan is to change the scores repeatedly; and, when the exercises presently to be suggested are taken, this will be found to be an absolute necessity.

In entering upon the writing stage the student should realize that he is called upon to refer every progression to his own personality, to his own feeling for harmonic and rhythmic shapeliness. Nor may he neglect the facts of climax and repose which play so important a part in all music worthy of the name. Every ' exercise ' written should be conceived under the influence of a mental struggle to obtain a definitely musical effect, and no attempt ought to be taken to the teacher until the various indications relating to tempo, style, and tone have been carefully added to the score.

SECTION 23. SET HARMONY.

No examples of harmony set by another hand can bestow a tithe of the power which may be gained from original work. It must be remembered that the student who has followed the course prescribed in this book approaches his present task with a full harmonic experience as his guide. He does not require to be engaged in discovering the potentialities of chords or the manner in which they may most effectively be made to coalesce in the phrase of music. These things are now native to him, and, in consequence, he is prepared to transfer his inward harmonic sensations to the page of manuscript.

Yet a proper arrangement of the material for study is at first essential, if only to prevent a casual and insufficiently wide handling of the subject from the new point of view. To this extent the student is for the moment limited in his means of exposition; but it is a limitation which will presently give place to personal and original expression.

It is understood that the following Steps are to be written as directed, and without the customary assistance of a given part. Each Step must be treated in four ways :

I. The chords to be written in extended form on the pianoforte staff, and for performance on that instrument; just, in fact, as they happen to be played by the student.
II. The chords to be transferred to vocal four-part shape.
III. Vocal melodies to be written specially adapted to the purpose of each Step, simple accompaniments being provided for the pianoforte.
IV. Melodies, specially adapted to the purpose of each Step, to be written for violin or other instrument, the accompaniments to be of a decorative nature and, in particular, to exemplify ingenuity in the use of figures.

[1] It is an extraordinary fact that students at our great schools of music are not only permitted but are deliberately encouraged to use the so-called short score for the expression of *vocal* harmony. The various teachers find, no doubt, that the vast majority of those who attend their classes are deficient in reading power, and that time spent upon an effort to read combined staves would prevent the progress demanded by the practice of the particular institution in which they work. Obviously, then, the fault is with the curriculum. An educationally conducted examination in the subject would at least make some attempt to ascertain the standard reached by each student in the preliminaries to writing power. Management of the various staves is one of these preliminaries, and it would be perfectly easy to make the first examination in harmony *per se* a writing and playing test in various combinations of staves. A further point is involved. Where, if not in the writing of harmony, can the student get experience in dealing, say, with the alto and tenor staves? Yet, without this experience, the orchestral score, and even that of the modest string quartet, is as a sealed book.

The following requisitions are also essential to success:

A. The major and minor modes should be used in strict alternation.
B. The whole of the major and minor keys should be used in rotation.
C. Each example should be the expression of a complete rhythmic idea.
D. When writing for voices the restricted compass of the human voice must necessarily be taken into account. When writing for instruments it is equally necessary to remember their extensive range and to make full use of it.

STEP A. Progressions of three tonal concords upon the lines of those originally studied at the keyboard.
STEP B. General use of the tonal concords with particular reference to the various types of cadence.
STEP C. Reversion to Steps A and B, introducing the chord of the dominant seventh.
STEP D. The use of unaccented diatonic auxiliary sounds in the progressions studied in Step C.
STEP E. The use of accented diatonic auxiliary sounds in the progressions of Step C. The auxiliary sounds should be both of the ' prepared ' and ' unprepared ' type.
STEP F. Reversion to Step D, exemplifying the use of unaccented chromatic auxiliary sounds.
STEP G. Reversion to Step E, exemplifying the use of accented chromatic auxiliary sounds.
STEP H. Sequences, both of the modulatory and non-modulatory type.
STEP I. The use of pedal-points, below, within, and above the harmony.
STEP J. Modulation achieved with link-chords and of exclusively diatonic character.
STEP K. Chromatic concords.
STEP L. Chromatic concords with auxiliary sounds, unaccented and accented.[1]
STEP M. Transferred chords of the dominant seventh.
STEP N. Concords linked by common sounds.
STEP O. Concords linked by common sounds to chords of the dominant seventh.
STEP P. Modulation achieved by common sounds between concords.
STEP Q. Modulation achieved by common sounds between transferred chords of the dominant seventh.
STEP R The added sounds of the dominant harmony, treated individually and from a dominant aspect only.
STEP S. Diatonic discords formed after the model of the sounds added to the dominant harmony and occurring upon every degree of the scale.
STEP T. Examples of chromatic modulation.
STEP U. The various uses of the chord of the diminished seventh.
STEP V. The enharmonic principle, applied particularly to the chord of the diminished seventh.
STEP W. Examples of enharmonic modulation.
STEP X. The chord of the augmented sixth.
STEP Y. Examples of modulation by means of the chord of the augmented sixth.
STEP Z. Examples of modulation through the enharmonic use of chords of the augmented sixth.

[1] From this Step onwards the general use of auxiliary sounds is understood.

SECTION 24. ORIGINAL HARMONY.

Fortified by conscious harmonic power and knowledge, the student must now take his first real step into the sphere of the imagination. His early attempts will probably take the form of a purely conventional treatment of harmony. This must not be regarded as a deterrent or as a sign of want of originality. No harmonist gets at a bound into the full stride of original work. There must be a period during which his imagination is tied down to the simplest tonal forms; and it not infrequently happens that this period is particularly valuable, not only in giving him confidence, but in forming a solid foundation for subsequent work.

Harmonic enterprise entails a careful observation of that personal use of harmony characteristic of great composers and which issues in the element of style. The literary writer achieves success in proportion as he is conversant with the work of the great stylists of literature. 'Though an author's plan should be faultless, and his story ever so well conducted, yet if he be feeble, or flat in style, destitute of affecting scenes, and deficient in poetical colouring, he can have no success' (BLAIR).

This passage may be paraphrased: Though a *composer's* plan should be faultless, and his *music* ever so well conducted, yet if he be feeble, or flat in style, destitute of affecting *climaxes*, and deficient in *harmonic* colouring, he can have no success.

Style in music and literature is a product of the personality of the writer. Style is, in fact, the expression and reflection of personality. As all composers of merit are known by the style of their forms of harmonic expression, so should it be the aim of the most timorous student to evolve harmony which can be directly referred to himself. In this way may personality be developed and originality born.

Accordingly, a thorough acquaintance with the harmonic characteristics of great composers is a primal necessity to the harmonist. His range of observation should extend from the primitive harmony of strictly diatonic writers to the freedom of expression native to the modern school. It is a most helpful expedient to collect a series of musical thoughts (subjects) specially distinctive of great musical stylists, frequently to compare them, and thus, ultimately, to obtain a clear perception of the subtle differences between their various habits of harmonic treatment. Haydn, Mozart, Beethoven, Schubert, Chopin, Schumann, Wagner, Brahms, Grieg, Debussy, &c., may all be made to contribute to so delightful a means of arousing the feeling for those subtleties of diction which so strongly differentiate the work of great writers, and yet which are usually imperceptible to the untaught mind.

The work of comparative research should also extend to the facts concerned with musical construction. To base the first original efforts upon the musical thoughts of great composers is a very illuminating experience. These may be taken as models of rhythmic shapes; not for the purpose of slavish imitation, but to remind the student of the necessity for proportion in every form of art-expression. To this end he will examine (*a*) the rhythmic construction of each thought, (*b*) the arrangement and effect of the cadences, (*c*) the place or places assigned to climax, (*d*) the melodic contour, and (*e*) the general characteristics of the harmony. A few examples are appended by way of suggestion:

Ex. 1. Beethoven. Sonata, Op. 13. 2nd mov. Bars 1 to 8.
A sentence formed of two phrases divided by a half-close.

Ex. 2. Beethoven. Sonata, Op. 78. 2nd mov. Bars 1 to 12.
A sentence of three phrases, each divided into rhythmic sections.

Ex. 3. Schubert. Sonata, Op. 122. 3rd mov. (Trio). Bars 1 to 10.
A sentence of two phrases, each formed by a rhythm of five bars.

Ex. 4. Beethoven. Sonata, Op. 14, No. 2. 3rd mov. Bars 1 to 8.
Two phrases, both with a tonic cadence and with a curious melodic figuration.

Ex. 5. Schumann. Op. 68, No. 25. Bars 1 to 8.
Two phrases, the first being subdivided. The first phrase ends with a tonic cadence; the second with a half-close.

Ex. 6. Ibid. Op. 68, No. 9. Bars 1 to 8.
Two bisected phrases. Both are similar except as regards the final cadence.

Ex. 7. Beethoven. Sonata, Op. 31, No. 2. 1st mov. Bars 1 to 21.
Two bisected phrases, and obviously very disproportionate in extent.

It is manifest that, since the foregoing examples are taken from pianoforte music, the first instinct of the student will be to write his own for the same instrument. This is a tendency which he must strenuously resist. He has arrived at a point when nothing will more effectually serve his highest purpose than to write short musical thoughts, not only for the pianoforte and for voices, but for other instruments, and, in particular, for combinations of instruments. The following are suggestive of forms which may be alternatively used:

A. Four-part vocal harmony with and without independent pianoforte accompaniment. The setting of various short stanzas of poetry is indispensable.
B. String quartets.
C. Solos for clarinet, flute, &c., with various types of accompaniment. This necessitates an adequate knowledge of the compass and possibilities of each instrument.
D. Solos for the various types of voices with pianoforte accompaniment alone or with various types of instrumental obbligati. Here, also, settings of short stanzas are indispensable.
E. Organ, with an independent part for the pedals.
F. The wood-wind of the orchestra.
G. Harp and the wood-wind of the orchestra.
H. Trio for pianoforte, violin, and violoncello.
I. Plain chordal thoughts for the brass of the orchestra. Suggestions for the proper use of these instruments may be obtained from the observation of many notable passages in modern scores.
J. Quartet and quintet for pianoforte and strings.
K. Trio for three stringed instruments.

But one point remains for attention. It has been said that freedom of harmonic choice is the prerogative of the modern musician. It is a thought to inspire every student. At a bound it places him in the position of an experimentalist. But he must remember that no human attribute needs greater preparatory discipline than freedom. The man who rules others well has learnt first to rule himself. The harmonist who has succeeded in expressing himself clearly, whose choice of harmonic material is personal and interesting, has first passed through the fire of discipline and purged himself of weakness and sentimentality.

Consequently, as far as it is possible to visualize the position to-day, the harmonist who has been through an early training in the classic tonal forms of music is infinitely better prepared to make use of the best in modern harmonic practice than he who, with no preparation of the kind, expects, forthwith, to leap into the arena of experiment.

A proof of this is afforded by many a modern composer, notably by Scriabin, who served a long apprenticeship in harmonic forms developed from the classic age, but who, when he had decided to plunge into more subtle art, was able, as a consequence of his apprenticeship, to use every ounce of his power and imagination in an entirely new outlook upon harmony.

Whether this will remain an educational principle in the years to come; whether the placing of new values upon the products of certain periods of musical history will ultimately disturb the veneration for the art-forms which mean so much to us now; whether, in brief, music will take to itself another form of language altogether unrelated to the art of the past, are questions which, whatever intrinsic interest they may possess for prophets and visionaries, do not absolve the student of to-day from the duty of mastering every form of harmonic expression upon which music has hitherto been built.

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